

GREEN BUSINESS & URBAN AGRICULTURE

• STRATEGIC PLAN •

CITY OF COLUMBUS

JUNE, 2017



ACKNOWLEDGEMENTS



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TABLE OF CONTENTS

EXECUTIVE SUMMARY	vi
GOALS.....	viii
DEFINITIONS	x
PLAN PURPOSE	xiv
PLANNING PROCESS.....	xvi
HOW TO USE THIS PLAN	xviii

SECTION 1: EXISTING CONDITIONS

1.0 HISTORICAL FACTORS.....	3
1.1 NEEDS AND OPPORTUNITIES ANALYSIS	6
1.2 LOCAL FARMS AND GREEN BUSINESSES	16
1.3 BEST PRACTICES	24

SECTION 2: INFLUENCING FACTORS

2.0 STATE AND FEDERAL REGULATORY FACTORS.....	34
2.1 LOCAL REGULATORY FACTORS	42
2.2 MACROECONOMIC FACTORS.....	52
2.3 MICROECONOMIC FACTORS	58

SECTION 3: ENGAGEMENT

3.0 ENGAGEMENT PROCESS.....	72
3.1 PRACTICAL BARRIERS	74
3.2 REGULATORY BARRIERS	76
3.3 ECONOMIC BARRIERS.....	78
3.4 MARKET BARRIERS	80

SECTION 4: RECOMMENDATIONS

4.0 INTRODUCTION.....	84
4.1 GENERAL RECOMMENDATIONS	86
4.2 BUILDING AND ZONING.....	100
4.3 ECONOMIC DEVELOPMENT	108
4.4 LAND REDEVELOPMENT	128
4.5 NEIGHBORHOODS.....	136
4.6 PUBLIC UTILITIES.....	140
4.7 PUBLIC HEALTH.....	142
4.8 RECREATION AND PARKS	144

SECTION 5: IMPLEMENTATION

5.0 IMPLEMENTATION THEMES.....	150
5.1 STAKEHOLDER BENEFITS.....	152
5.2 THEME 1: BUILD NETWORKS	154
5.3 THEME 2: CULTIVATE CULTURE.....	156
5.4 THEME 3: IMPROVE HEALTH.....	158
5.5 THEME 4: CREATE OPPORTUNITIES	160
5.6 THEME 5: FOSTER REVITALIZATION.....	162
5.7 DEVELOPMENT CONCEPTS	164

SECTION 6: BUDGET AND TIMEFRAME

6.0 PROPOSED TIMEFRAMES AND BUDGET ESTIMATES.....	178
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LIST OF FIGURES

1.0.01 City of Columbus Change 1950–2010.....	3	1.1.08 Obesity Rates.....	9
1.0.02 1950 and 2010 City Limit Comparison.....	3	1.1.09 Diabetes Rates.....	9
1.0.03 City of Columbus Shifts in Density.....	4	1.1.10 Median Housing Unit Value.....	10
1.0.04 Land Use Changes Over Time.....	5	1.1.11 Composite Map of Needs.....	11
1.1.01 Site Selection Scorecard.....	7	1.1.12 Public Transportation Access	12
1.1.02 Median Household Income	8	1.1.13 Premium Transportation Access.....	12
1.1.03 Unemployment Rates	8	1.1.14 Proximity to Vacant Parcels	12
1.1.04 Vacancy Rates	8	1.1.15 Proximity to Community Anchors	12
1.1.05 Households on Food Stamps.....	8	1.1.16 Population Density.....	13
1.1.06 Retail Food Environment.....	9	1.1.17 Composite Map of Opportunities	14
1.1.07 Food Deserts.....	9	1.1.18 Composite Map of Needs and Opportunities.....	15
2.1.01 Gardens on Land Bank Lots.....	50	2.5.03 Employment in Food Manufacturing	65
2.1.02 City Owned Parks	51	2.5.05 Residential Vacancy in Regional Cities	66
2.2.01 Urban versus Rural Population, 1900–2010.....	52	2.5.06 Comparison of City Patterns.....	66
2.2.02 Pop. Change in Regional Cities, 2000–2015	66	2.6.01 Average Monthly Spending	68
2.5.02 Employment in Agriculture by Regional City....	64	2.6.02 Local Food Demand.....	68
3.0.01 Barriers to Growth	73		
3.3.01 Market Feasibility of Urban Agriculture.....	78		
4.3.01 Local Food System Jobs, Franklin Co., 2014.....	108		
4.3.02 Transportation & Logistics LQ, 2010–2013	108		
4.3.03 Local Logistics LQ, 2010–2013	109		
4.3.04 Food Manufacturing LQ, 2010–2013	109		
4.3.05 Change in Grocery Wholesale, 2000–2014.....	110		
4.3.06 Change in Food Manuf. Emp., 2000–2014.....	110		
4.3.07 Job Sector Impacts of Local Distributors	111		
4.4.01 Columbus Land Bank Comm. Gardens	128		
5.5.01 Potential Growth.....	161	5.7.06 Small Commercial Reuse Scenario Design	171
5.5.02 Local Food Economic Model	161	5.7.07 Industrial Building Reuse Scenario Site	172
5.6.01 Focus Neighborhoods.....	163	5.7.08 Industrial Building Reuse Scenario Design.....	173
5.7.01 Single Lot Scenario Existing Site.....	166	5.7.09 Large-scale Comm. Reuse Scenario Site.....	174
5.7.02 Single Lot Scenario Proposed Design.....	167	5.7.10 Large-scale Comm. Reuse Scenario Design	175
5.7.03 Multiple Lots Scenario Existing Site.....	168		
5.7.04 Multiple Lots Scenario Proposed Design	169		
5.7.05 Small Commercial Reuse Scenario Site	170		
6.0.01 Proposed Timeframe And Budget Chart	178		

EXECUTIVE SUMMARY

INTRODUCTION

The Green Business and Urban Agriculture Strategic Plan is an outgrowth of several other local food planning efforts and is tied to expanding community interest in green businesses and urban agriculture. The specific focus of this plan is to enable, support, and grow green businesses and urban agriculture facilities within the City of Columbus.

For the purposes of this plan, green businesses are defined as enterprises that support and are supported by urban agriculture and local food systems within the City. These range from composting facilities to garden supply shops to hydroponic system suppliers to food processors and logistics companies. This definition of green businesses does not include retail establishments and restaurants but does include the businesses that grow, process and distribute products they sell.

Urban agriculture is the practice of growing food within an urban context, typically on smaller lots than conventional rural agriculture, and constrained by surrounding urban development. Urban agriculture includes urban farms, community gardens, specialty operations (i.e. aquaculture and aquaponics) and home gardens. These urban agriculture facilities have a very broad range of scales, from small backyard gardens to large industrial-scale production facilities.

INTEGRATION WITH LOCAL FOOD ACTION PLAN

The Local Food Action Plan (LFAP) is a separate planning effort that includes broader policy concepts that function at a county-wide scale. This plan builds on the concepts established by the LFAP team and adapts them to the regulatory environment within the City of Columbus. All of the recommendations in this plan are rooted in the work established by the LFAP.

PROCESS

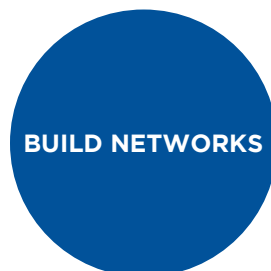
The process was led by the Planning Division of the Department of Development, the Consultant Team, and a Working Group composed of various City departments. Numerous policy workshops and meetings were held to discuss numerous specific policy issues. The Planning Team hosted three stakeholder workshops which provided an opportunity to listen to existing issues and concerns and to test concepts and policy recommendations. This plan reflects the collective input of all of these groups and community members.

POLICY RECOMMENDATIONS

The plan includes a number of policy recommendations which address existing City regulations, funding mechanisms, and administrative practices. Some of these recommendations are simple tweaks, others will require a public process to implement. In all cases, these recommendations are intended to enable green business and urban agriculture as a means to further public health, community revitalization, and economic development.

FIVE THEMES FOR IMPLEMENTATION

Five themes emerged through the planning process from conversations with the working group, policy makers, community members, green business and urban agriculture practitioners and advocates. These themes form an overarching vision for green business and urban agriculture in the City of Columbus. By following the recommendations of the Green Business & Urban Agriculture Strategic Plan, residents and policy makers will work to:



Build Networks — connect growers, producers, distributors, sellers, and buyers; foster relationships with policy makers and code enforcement;



Cultivate Culture — facilitate social connection among neighbors, advocates and entrepreneurs; strengthen an image that attracts new ventures and visitors;



Improve Health — raise awareness of healthy eating; increasing availability of fresh healthy foods to neighborhoods overall and especially in those with the most need;
















Create Opportunities — enable and incentivize new business who grow, process, distribute, cook, advertise, and celebrate local foods; and,



Foster Revitalization — create lasting change in neighborhoods that are suffering from disinvestment and disconnection.

STAKEHOLDERS

Through these five themes, four primary stakeholder groups emerge. These groups will benefit from the recommendations in the Green Business & Urban Agriculture Strategic Plan in distinct, measurable ways. The vision for these user benefits are imagined through the eyes of the following people:

GROWERS	GREEN BUSINESS OWNERS
 <p>The backyard gardener wants to enhance their family's health by growing organic produce and raising chickens for free-range eggs.</p>	 <p>The green business entrepreneur would like to capitalize on local food waste by starting a citywide composting business.</p>
 <p>The community gardener has an empty lot across the street and wants to improve neighborhood culture and health by starting a garden with their neighbors.</p>	 <p>The chef works toward opening a first restaurant concept at the local market, testing a menu and assembling regular customers.</p>
 <p>The market gardener wants to distribute their produce at local farmers markets to supplement their family's income.</p>	 <p>The cottage baker is celebrating success and ready to learn how to move into a larger space and hire employees.</p>
 <p>The urban grower is able to grow their business because of updated regulations and confidence in the market for local foods.</p>	 <p>The developer owns properties that are currently underutilized and is looking to fill vacant structures with new uses that are profitable and have a community benefit.</p>
RESIDENTS	NON-RESIDENTS
 <p>The community member would like to purchase a CSA share and is looking for information on local farms who offer them.</p>	 <p>The tourist is attracted by a desire to explore the quality of local food and related experiences throughout the City.</p>
 <p>The skilled tradesperson looks for job listings to work a for local green businesses and growing operations.</p>	 <p>The potential residents want to move to a walkable urban neighborhood with engaged neighbors, positive momentum, and opportunities for participation.</p>
 <p>The student is looking for easier access to healthy food within walking distance or via convenient public transit.</p>	

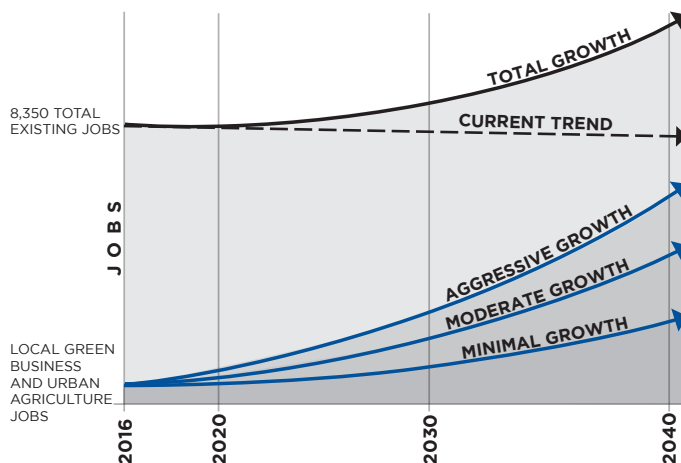
COMMUNITY REVITALIZATION

Neighborhoods in need of revitalization and increased opportunity often have poor food access and a lack of adequate transportation options. These types of places are precisely where investment in local food systems has documented success.

Through an issues and opportunities analysis, eight neighborhoods were identified as focus areas for implementation of many of these recommendations. These neighborhoods closely align with areas also identified in the CelebrateOne project and other separate but related City initiatives. (See Section 5.6.01)

ECONOMIC DEVELOPMENT

A broad goal of the plan is to generate economic development through multiple channels. There are currently very few agricultural jobs in Franklin County and total employment in food related business has been decreasing. The plan aims to generate jobs across all spectrums of the food industry including growing, processing, packaging, distribution and sales. Growth in all of these sectors will result in a total increase of food related jobs and a reversal of the current downward trend. This broad strategy for local food supply and distribution can help to gradually fill a large percentage of the total demand in Central Ohio.



- 01 **ADVANCE LOCAL FOOD ACTION PLAN**
ACTION ITEMS
- 02 **DEFINE GREEN BUSINESS AND URBAN**
AGRICULTURE FOR COLUMBUS
- 03 **IDENTIFY ECONOMIC DEVELOPMENT**
POTENTIAL OF GREEN BUSINESS AND
URBAN AGRICULTURE IN COLUMBUS
- 04 **CAPITALIZE ON THE NEIGHBORHOOD**
REVITALIZATION POTENTIAL OF
URBAN AGRICULTURE
- 05 **PROVIDE A TOOL FOR CITY OF**
COLUMBUS TO ENABLE GREEN
BUSINESS AND URBAN AGRICULTURE



DEFINITIONS

WHAT ARE GREEN BUSINESSES?

Green businesses are enterprises that support and are supported by urban agriculture and local food systems within the City.

Green businesses range from composting facilities to garden supply shops to hydroponic system suppliers to food processors and logistics companies. This definition of green businesses does not include retail and restaurants but does include the businesses that grow, process and distribute products they sell.

Some key components of local food systems include:

AGGREGATION

- The consolidation of products sourced from multiple growers or producers in order to generate volumes great enough to meet the demands of a larger market — a key ingredient for scaling up local and regional food systems.

DISTRIBUTION

- The methods of moving food to markets such as restaurants, grocery stores, and institutions. Scales of distribution range from on-site direct sales to wholesale transactions.

PROCESSING

- A post-harvest method of converting raw food into a value-added product for consumption, cooking, or storage.

RECOVERY

- An effort to prevent and divert food waste. The US EPA Food Recovery Hierarchy tiers from most preferred to least preferred methods of recovery are:

- * Source Reduction
- * Feed Hungry People
- * Feed Animals
- * Industrial Uses
- * Composting
- * Landfill/Incineration

STORAGE

- A post-harvest method of extending the life of products and increasing the availability of produce and perishable food products.

GREEN BUSINESS DEFINITIONS

Anaerobic Digester

Anaerobic digesters are tools used for food waste recovery. A biodigester uses bacteria to break down organic matter and capture gases in a process called anaerobic fermentation. Methane, the main chemical in natural gas, is trapped and can then be burned for heating and electricity.

(Source: American BioGas Council)



Composting

Composting is a method of converting organic waste into a nutrient rich soil amendment for use in farming. Organic matter is broken down over several weeks or months, aided by inputs such as nitrogen, carbon, worms or fungi. Composting facilities can range from backyard bins to Citywide municipal programs that collect and compost yard waste.



Food Hub

Food Hubs are facilities that connect local agricultural supply to the wholesale buyers of local food. Food Hubs have become an increasingly popular model for the aggregation and distribution of local/regional food in urban and rural centers over the past decade. The U.S. Department of Agriculture's (USDA) working definition of a Food Hub is a "business or organization that actively manages the aggregation, distribution, and marketing of source-identified food products primarily from local and regional producers to strengthen their ability to satisfy wholesale, retail, and institutional demand" (USDA James Barham et al. 2012, 4).

Due to strong support from the USDA, recent economic analysis identifies that there has been “a proliferation in the number and recognition of ‘Food Hubs’ across the United States, as well as substantial increases in foundation and public funding to support their development.” Food Hubs not only generate economic value within a local economy, but also have a large impact on the economic viability of local agricultural producers.



Food Innovation Center

Food Innovation Centers harness research and industry resources to assist food processors in business development, market research, product and process innovation, food science, workforce development and training, regulations and compliance support, and quality assurance and food safety systems.



High Pressure Processing (HPP)

HPP is a processing technique that uses pressure to inactivate microbes and enzymes for food preservation, rather than temperature, preserving the chemical structure and nutrients. HPP is typically used for foods that lose taste, texture, or color overtime such as fruit juices, dressings, and guacamole. (Source: US Food and Drug Administration)

KITCHEN INCUBATOR

Kitchen Incubators are licensed commercial kitchens where food business startups can prepare their products using shared space and equipment. Successful Kitchen Incubators take a comprehensive approach to preparing

entrepreneurs for market. Facilities are licensable for food manufacturing, food-service, food handling and aggregation with dedicated space for processing, packaging, mixed-use operations, and warehousing. Comprehensive Kitchen Incubators provide vital knowledge to local food entrepreneurs in the form of technical assistance to comprehend the alphabet soup of FDA regulations: GAP (Good Agricultural Practices), GMP (Good Manufacturing Practices) and HACCP (Hazardous Analysis Critical Control Points). They also provide training to entrepreneurs in operation of commercial equipment and safe food handling practices.

Shared-use Licensed Kitchens

For-profit, shared-use facilities provide another model of easy entry for new food entrepreneurs. These kitchens target startup entrepreneurs needing licensed commercial kitchens with designated areas for preparing, packaging, catering and baking. Many shared-use facilities run cooking classes, nutritional training programs, and “pop-up” restaurants to attract aspiring food entrepreneurs.

Value Added Products

Value added products, as defined by the USDA, are food products that have been altered (i.e. have had value added) in one of three ways: (1) A change in the physical state or form of the product (such as milling wheat into flour or making strawberries into jam); (2) The production of a product in a manner that enhances its value, as demonstrated through a business plan (such as organically produced products); or, (3) The physical segregation of an agricultural commodity or product in a manner that results in the enhancement of the value of that commodity or product (such as an identity preserved marketing system).

(Source: US Department of Agriculture)

Cottage Foods

A “Cottage Food Production Operation” is defined in Chapter 3715 of the Ohio Revised Code to mean, a person who, in the person’s home, produces food items that are not potentially hazardous foods, including bakery products, jams, jellies, candy, fruit butter, and similar products specified in rules. These foods must be labeled properly.

“Home” means the primary residence occupied by the residence’s owner—using only one stove or oven designed for common residential use in an ordinary kitchen, not a commercial oven or separate kitchen space. (Source: Ohio Department of Agriculture)

DEFINITIONS

WHAT IS URBAN AGRICULTURE?

Urban agriculture is the practice of growing food within a city, typically on smaller lots than conventional rural agriculture, and constrained by surrounding urban development. Urban agriculture includes urban farms, community gardens, specialty operations (i.e. aquaculture and aquaponics) and home gardens.

Urban farming is a subset of urban agriculture, and typically refers to an operation which grows food for others, either for profit, as a social enterprise, or in combination. While many different crops can be produced in an urban environment, high-value vegetables and fruits — sometimes produced for a specific niche local market — are typically produced on urban farms. While certain small livestock such as poultry and goats can be raised in an urban environment, larger livestock that require more land are not typically a component of an urban farm.

URBAN AGRICULTURE DEFINITIONS

Aquaponics

Aquaponics is a combination of aquaculture (raising fish) with a hydroponics system creating a symbiotic relationship and environment. Excretions from the fish supply nutrients to the hydroponic system which are then broken down by the plants and recirculated back to the system.



Community Garden

A community garden is a space created in partnership with allied community organizations that focus on food security and access to fresh, healthy food. These gardens are generally grassroots movements within neighborhoods that see a need to grow food, create educational opportunities, provide community open space, and work together for the benefit of the community. Many of these efforts repurpose underutilized parcels throughout urban neighborhoods and turn them in to productive use.



Community-Supported Agriculture (CSA)

CSA is a program where members pay for a “share” of crops from a farm or group of farms to receive produce throughout the growing season. Members pay a flat fee for products at the beginning of the growing season and then receive regular installments of goods throughout the season. The volume of product members receive fluctuates with the success and availability of each crop or product. CSA members benefit the farm by providing the farm or garden with up-front capital for the growing season and sharing the risks of a poor harvest while enjoying the benefits of a bountiful harvest. CSA shares are typically picked up by the member and may contain a diverse range of produce or value added products, including meat, eggs, and milk.

Hoop House

A metal hoop structure covered by transparent plastic sheeting that extends the growing season, allowing produce to be grown year-round.



Hydroponics

A method of growing plants that utilizes a mineral nutrient solution, in water without soil. Some systems will grow plants with their roots in an inert medium such as perlite or gravel.

Social Enterprise

Social enterprise organizations focus on larger social issues related to food security, access, education, and nutrition within urban environments. They are generally located in under served neighborhoods with high unemployment, low property values, and low food access. Largely non-profit, these organizations utilize grants, donations, and sweat equity (volunteer or free personal labor) to provide education, employment and other opportunities for residents within their communities. An urban farm and community garden could be a social enterprise with the backing of an organization that is focused on these larger social issues.

Urban Farms

An urban farm is a production-focused operation with large or small tracts of urbanized land under cultivation. They grow basic produce (vegetables, fruit, herbs) and may house livestock such as chickens and/or goats. Urban farms may also have the ability to produce value-added products such as honey or cider. They typically use space-intensive methods of production such as hoop-houses, aquaponics, hydroponics, and raised beds. An urban farm may have a for-profit, non-profit, or social enterprise economic model depending on the governing organization(s). Urban farms generally grow food for others and distribute products locally. Distribution methods include CSAs and selling to local restaurants, farmers markets, and at stands at their farm location.



OTHER DEFINITIONS

BMPs

BMPs, or Best Management Practices, are methods accepted by a given industry as the best practice for managing a given factor in order to achieve a given desired outcome. BMPs act as basis for regulation and policy decisions. For example, stormwater BMPs are methods for managing stormwater with desired outcomes, such as decreased overall flow or decreased petrochemical pollution in local waterways.

Local Food Systems

For the purpose of this plan, local food systems includes the entire network —from growth to market — of green businesses and agricultural producers that bring local foods to consumers in Columbus. “Local” is not given a geographical boundary in order to provide flexibility for the policies and programs recommended in Section 4. A geographical definition of local may be more broad or more central depending on the context and scope of each green business.

Food Deserts

US Department of Agriculture defines food deserts in urban areas as communities located more than 1 mile from the nearest supermarket.

Food Swamps

A food swamp is defined by the Centers for Disease Control and Prevention as “areas in which large relative amounts of energy-dense snack foods, inundate healthy food options.”

PURPOSE

The purpose of the plan is to provide a means to implement strategies from the Local Food Action Plan and enable the City to facilitate the growth of urban agriculture and green business ventures related to food production and urban agriculture, such as processing, distribution, and aggregation.

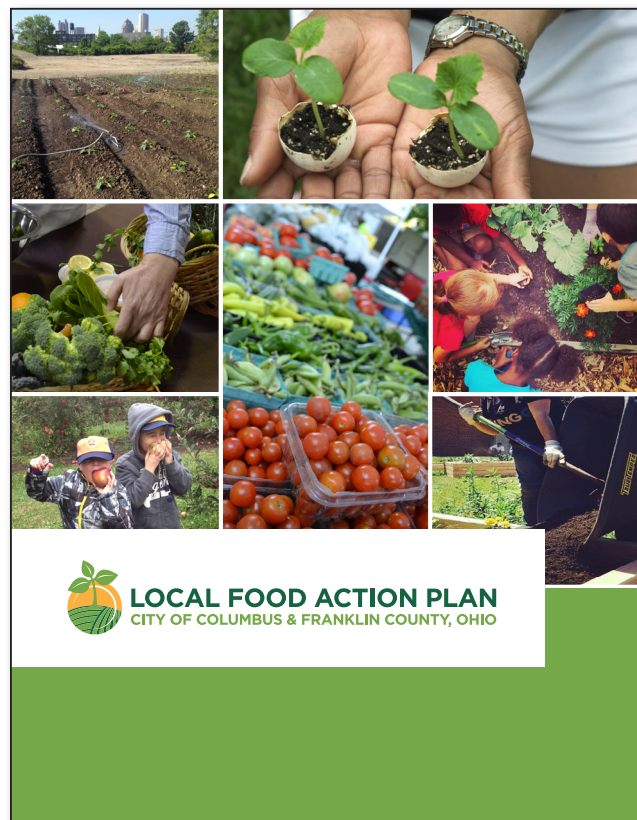
LOCAL FOOD ACTION PLAN

The Local Food Action Plan is a separate but complimentary effort between The City of Columbus, the non-profit food advocacy organization Local Matters, and Franklin County. The purpose of the Local Food Action Plan is to strengthen the local food system and increase the accessibility of fresh, affordable food for all residents of Franklin County.

The goals of the Local Food Action Plan are to:

- Enhance coordination and communication among existing food resources and agencies;
- Improve access to and education about healthy, affordable local food;
- Increase the role of food in economic development; and,
- Prevent food-related waste.

The Green Business & Urban Agriculture Strategic Plan focuses on the Local Food Action Plan's action items that relate to coordination, access, and economic development. Education is identified in the Local Food Action Plan as a critical component needed to strengthen the local food system. As part of the planning process, this plan found that education is also needed for the general public, urban growers/producers, and City officials. Recommending the creation of strictly educational programs is beyond the scope of this plan, however education has been included as a component of several policy and economic development recommendations in Section 4.



OTHER PLANNING EFFORTS

This plan relates to other initiatives in the City of Columbus, including the Columbus Green Community Plan: Green Memo III, Blueprint Columbus, and CelebrateOne.

Columbus Green Memo III

The Columbus Green Community Plan: Green Memo III has two goals related to urban agriculture and local food systems. These goals are to:

- Reduce the amount of census tracts considered food deserts by the U.S. Department of Agriculture by 10%; and,
- Add 10 acres of land for food production over the next five years.

Blueprint Columbus

Blueprint Columbus is a plan by the Department Of Public Utilities, Division Of Sewerage And Drainage that includes green infrastructure as one of four methods to reduce combined sewer overflows and sanitary sewer overflows in Columbus. Larger urban agriculture facilities and facilities with impervious cover such as hoop houses or green houses will likely be required to meet stormwater quality and quantity standards with green infrastructure detention facilities and rain gardens.

CelebrateOne

Every year in Franklin County, 150 babies die before reaching their first birthday – and African American babies are dying at 2.5 times the rate of white babies. Mayor Andrew Ginther and the Greater Columbus Infant Mortality Task Force created CelebrateOne, a collective impact initiative, to align, organize and implement efforts to reduce Columbus' Infant Mortality Rate by 40%, and decrease the racial disparity rate of infant deaths by 50% by the year 2020. Eight recommendations were identified by the task force in the Greater Columbus Infant Mortality Task Force Implementation Plan. Recommendation 1 is "Improve social and economic conditions that drive disparities across our community and in neighborhoods where infant mortality rates are the highest."

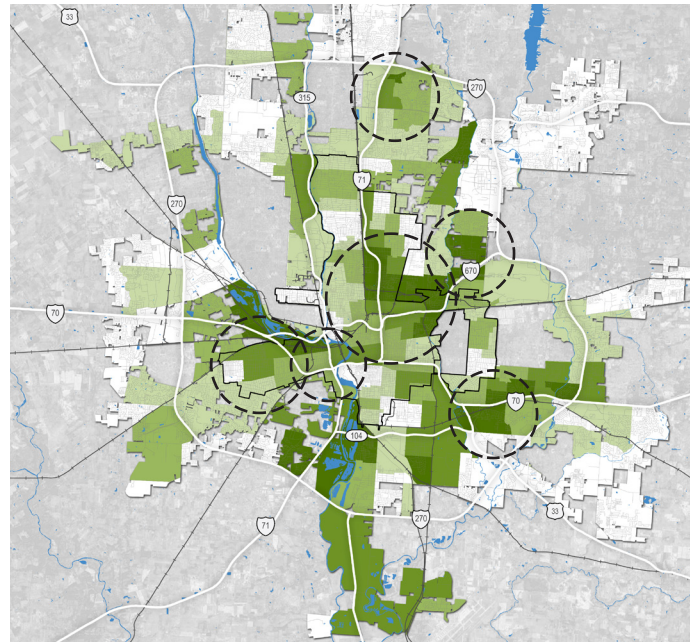
This plan identifies ways green businesses and urban agriculture can create economic opportunity and neighborhood stability through job creation, entrepreneurship opportunities and vacant property re-use. While not directly correlated, the majority of neighborhoods with a high infant mortality rate coincided with food deserts and food swamps. See figures 1.1.01 and 1.1.02. Increased access to healthy food options in underserved areas could likely have a positive impact on infant mortality rates in these areas. Early findings from CelebrateOne include the following definitions and high priority Columbus neighborhoods:

- Neighborhoods with the highest rates of infant mortality were identified as high priority areas for funding and resources. (see list)
- Most of these high priority areas are located in areas with low food access or defined as food deserts or food swamps.
- The modified Retail Food Environment Index (mRFEI) is a way of measuring the number of healthy and less healthy food retailers in an area using a single number.

High Priority Areas for Funding and Research

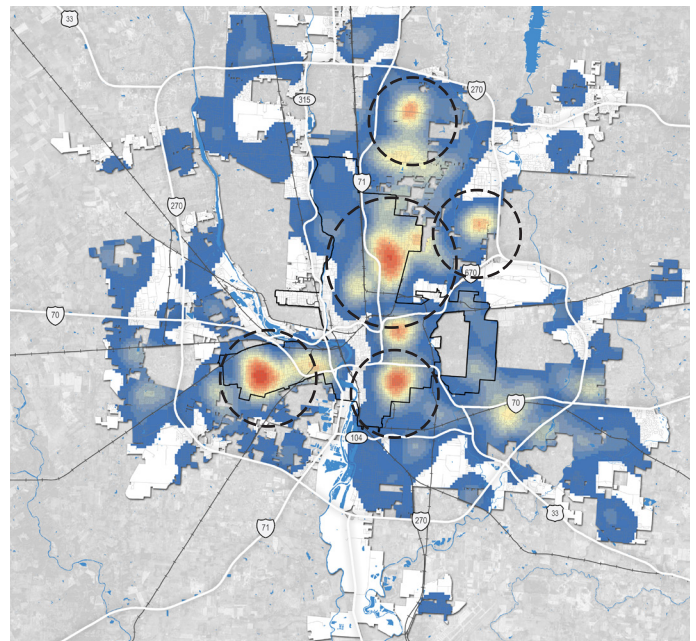
- Near South
- Linden
- Near East
- Hilltop
- Franklinton
- Morse Rd. and 161
- Southeast
- Northeast

FOOD DESERTS AND SWAMPS



(Data Sources: USDA Food Access Research Atlas, 2013, CDC mRFEI Scores by Census Tract, 2014)

INFANT MORTALITY HOT SPOTS



(Data Source: The Kirwan Institute)

PLANNING PROCESS

PLANNING TEAM

The following members contributed to the Green Business & Urban Agriculture Strategic Plan.

Project Management

The Department of Development administered the project and provided key project management responsibilities.

Working Group

The planning effort was guided by the Working Group, which consisted of City staff from departments either involved in the Local Food Action Plan or crucial to facilitating green business and urban agriculture. The consultant team met with the Working Group monthly throughout the process to share information, gain input and develop recommendations.

Consultant Team

To create the Green Business and Urban Agriculture Strategic Plan, The Department of Development Planning Division engaged a team of six consultants and specialists. MKSK led the planning process, assembled the plan, and developed mapping and site development concepts. OSU Extension and MORPC coordinated stakeholder workshops and provided green business and urban agriculture expertise. Acenet provided green business expertise related to processing and distribution and state and federal regulations. Development Strategies conducted macro level economic development analysis and data assessment. Graydon Land Use completed a code diagnostic of existing regulations and developed code and policy modifications to promote green business and urban agriculture.

Outreach

The consultant team also facilitated a series of three Policy and Stakeholder Workshops at each phase of the process. Each workshop took place in a single day, consisting of several one hour sessions with different groups of City staff and local stakeholders. The Policy Workshops were held in the Beacon Building on Carolyn Ave and included sessions with BZS One-Stop Shop, Department of Public Health and Safety, Department of Economic Development, and Local Outreach and Neighborhood Coordination.

The Stakeholder Workshops were held at MORPC and MKSK and followed a similar format as the Policy Workshops. The topics for the sessions were Supply Chain, Financing/Business Support, Social Enterprise/Community Focused Producers, Supportive Green Businesses and Producers/Growers.



Photo: MKSK



Photo: MKSK

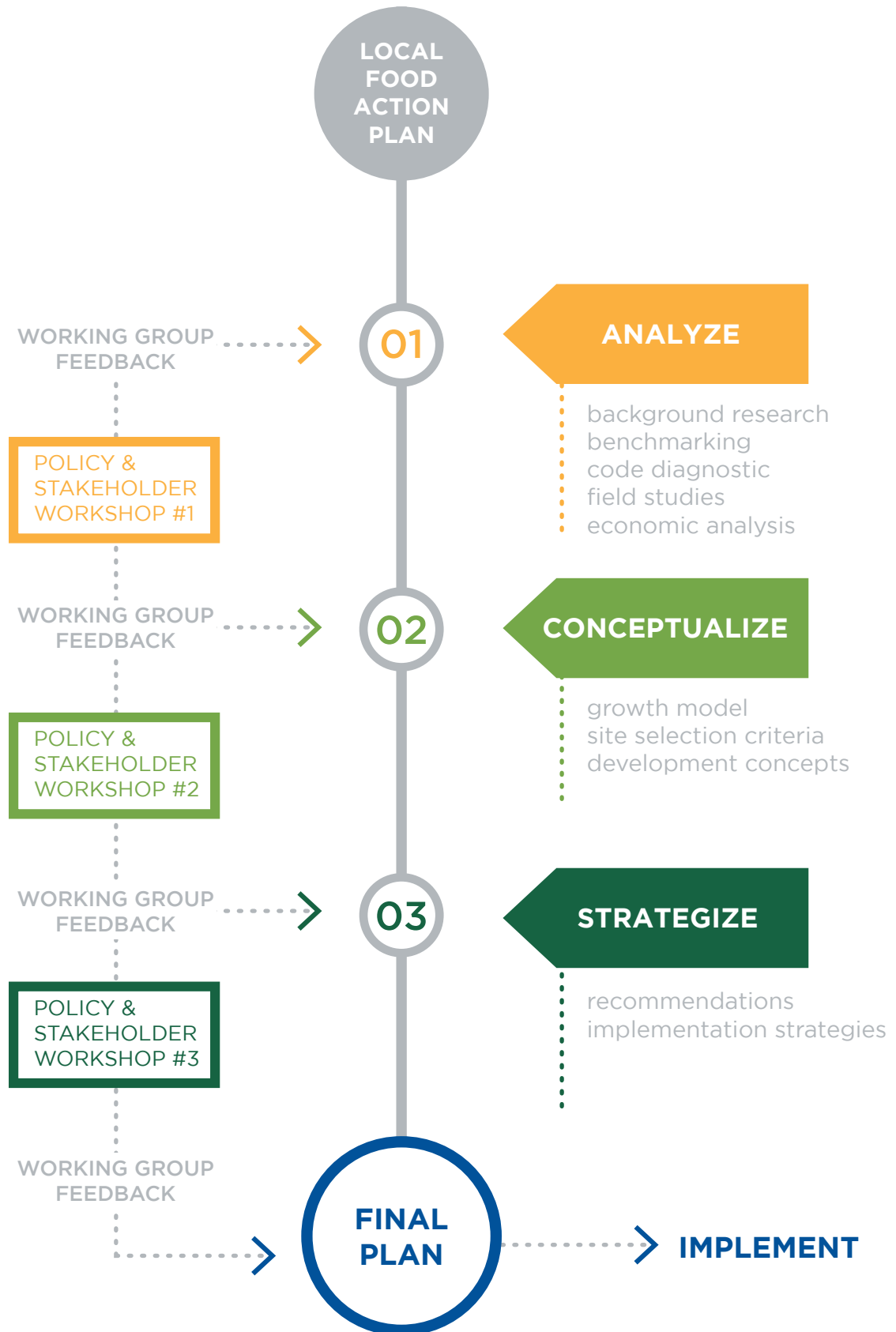


Photo: MKSK



Photo: MKSK

PLANNING PROCESS



HOW TO USE THIS PLAN

The Green Business and Urban Agriculture Strategic Plan is divided into the following sections:

SECTION 1: EXISTING CONDITIONS

The Existing Conditions section explores various historical and current conditions of Columbus. It provides an overview of urban farming practices in the City as well as national examples and best practices.

SECTION 2: INFLUENCING FACTORS

The Influencing Factors looks at various regulatory factors and the macroeconomic and microeconomic factors affecting urban agriculture and green businesses.

SECTION 3: ENGAGEMENT

The Engagement section describes how the planning team maintained a dialogue with the working group and stakeholders. The feedback from workshops and field studies was used to develop a list of barriers that could limit the growth of urban agriculture and green business in the City.

SECTION 4: RECOMMENDATIONS

The recommendations address specific Local Food Action Plan items, address barriers identified in Section 3, define indicators for evaluation, and identify strategic partnerships for implementation. Recommendations are organized by City department in order to clearly outline responsibility for implementation efforts. Recommendations without clear departmental responsibilities have been grouped into a general category, which could be led by elected officials, a department willing to champion them or a non-profit entity.

SECTION 5: VISION

The Vision section provides a framework for the future of green business and urban agriculture in the City. Development concepts help to illustrate the implementation themes on sites within the City.



SECTION 1

EXISTING CONDITIONS

Section 1 provides an overview of the existing conditions of green business and urban agriculture in Columbus through discussion of historical land use patterns and factors, a city-wide needs and opportunities analysis and an inventory of existing green businesses and urban agriculture facilities within the City of Columbus.

Case studies of recognized national best practices are provided to define and create an understanding of various urban agriculture methods and associated green business types. The case studies explore the organizational model, production capacity, technology, job opportunities, and methods for successful operation.

EXISTING CONDITIONS

1.0 Historical Factors



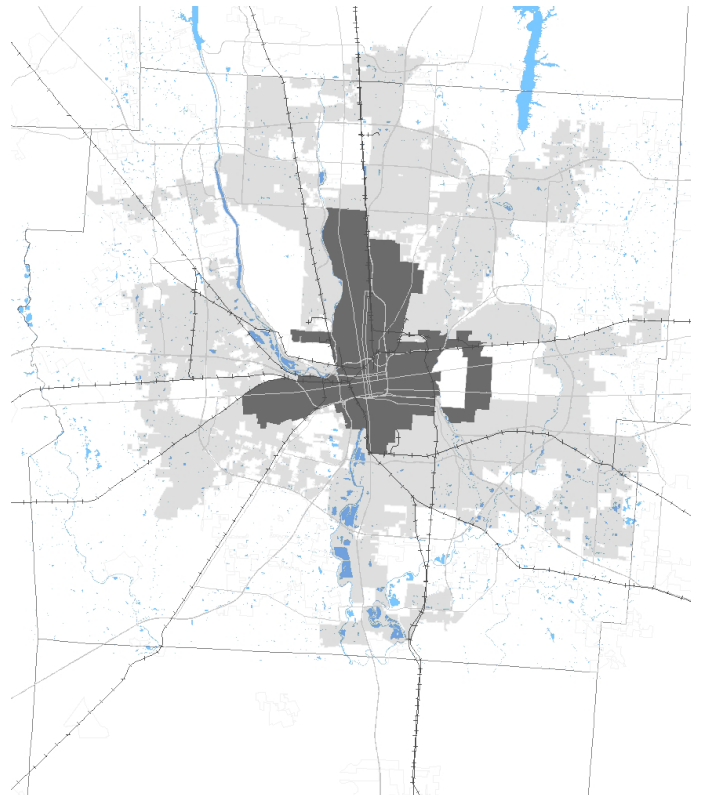
Photo: OSU Extension

FIGURE 1.0.01: CITY OF COLUMBUS CHANGE, 1950-2010

	CITY POPULATION	CITY AREA	POPULATION DENSITY
1950	375,901 Persons	39.4 Square Miles	9541 Persons per Square Mile
1960	471,316 Persons	89.0 Square Miles	5296 Persons per Square Mile
1970	539,677 Persons	134.6 Square Miles	4009 Persons per Square Mile
1980	564,871 Persons	180.9 Square Miles	3123 Persons per Square Mile
1990	632,910 Persons	190.9 Square Miles	3315 Persons per Square Mile
2000	711,470 Persons	212.5 Square Miles	3348 Persons per Square Mile
2010	787,033 Persons	223.1 Square Miles	3528 Persons per Square Mile

(Source: Minnesota Population Center. National Historical Geographic Information System: Version 11.0 [Database]. Minneapolis: University of Minnesota. 2016. <http://doi.org/10.18128/D050.V11.0> , US Census)

FIGURE 1.0.02: 1950 AND 2010 CITY LIMIT COMPARISON



CHANGES IN CITY SIZE AND POPULATION DENSITY

Columbus has changed significantly over the last century and has grown in both physical size and population. Between 1950 and 1980, the City more than quadrupled in physical area while its population density dropped by two-thirds. This resulted from dramatic shifts in both administrative policies and development patterns.

Following the low point of population density in 1980, population growth accelerated while city annexation slowed. This resulted in an overall increase in population density between 1980 and 2010. This trend toward increased density will likely continue over the next several decades, evidenced by significant infill development underway throughout the City.

1950 Boundary: Urban Columbus

The neighborhoods within the 1950 boundary of Columbus are a focus of this plan. With a population density of over 9000 persons per acre, Columbus in 1950 had a comparable density to other large cities in the Great Lakes region. Most neighborhoods were densely developed with narrow streets, small lots, alleys, and a mix of land uses.

These neighborhoods are considered today to be urban or historic Columbus. While many of these neighborhoods have been revitalized, others have not seen the same level of investment.

EXISTING CONDITIONS

1.0 Historical Factors

CHANGES IN DENSITY AND DEVELOPMENT PATTERNS

Another result of shifts in development patterns and administrative policies was a change in density at the neighborhood scale. Many neighborhoods along the Broad Street, Main Street, Cleveland Avenue, and High Street corridors were still relatively densely populated in 1970. By 2010, many of these neighborhoods saw significant decline in population, resulting in comparable levels of density to areas that have a more suburban urban form. This loss in population and density has resulted in many vacant lots and structures as well as underdeveloped land. The corresponding maps and photographs illustrate this change in density over time in Columbus.

FIGURE 1.0.03: CITY OF COLUMBUS SHIFTS IN DENSITY, 1970-2010

(Source: Minnesota Population Center. National Historical Geographic Information System: Version 11.0 [Database]. Minneapolis: University of Minnesota. 2016. <http://doi.org/10.18128/D050.V11.0>.)

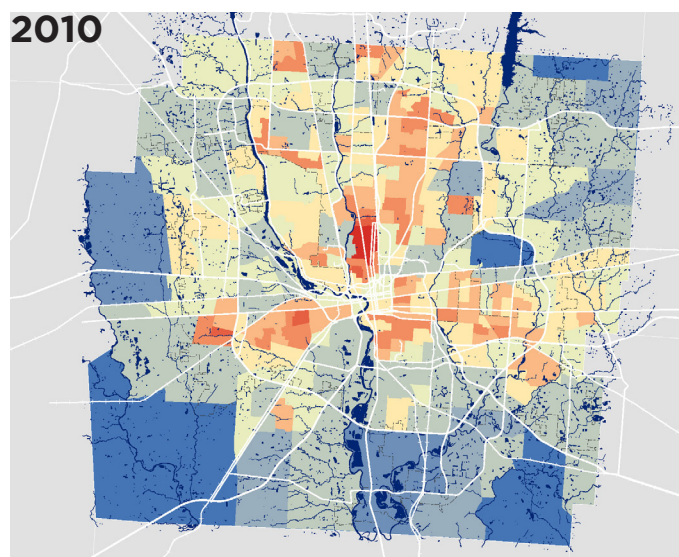
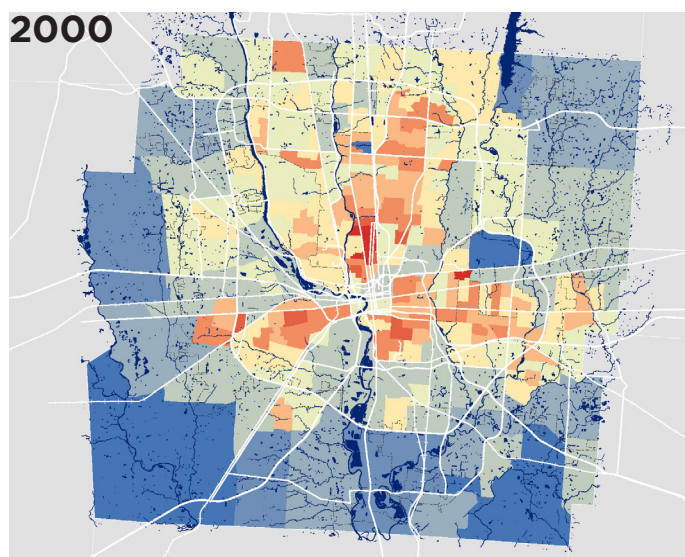
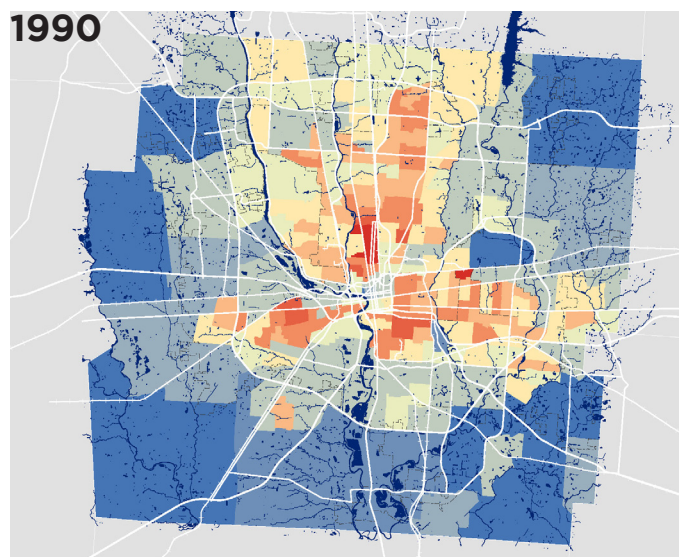
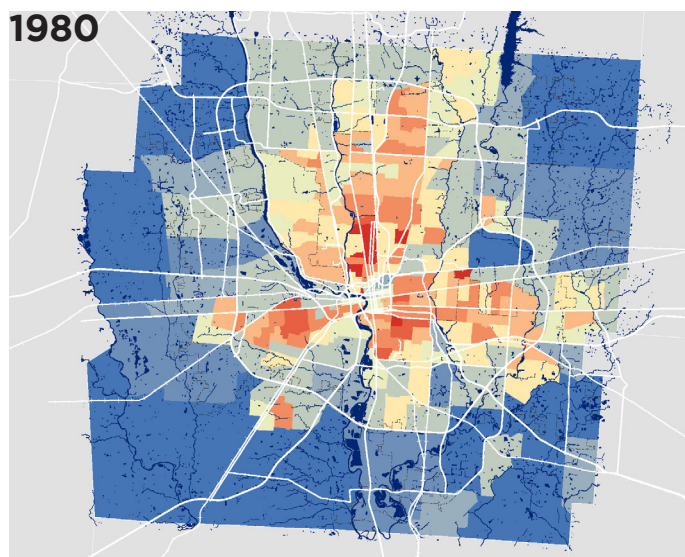
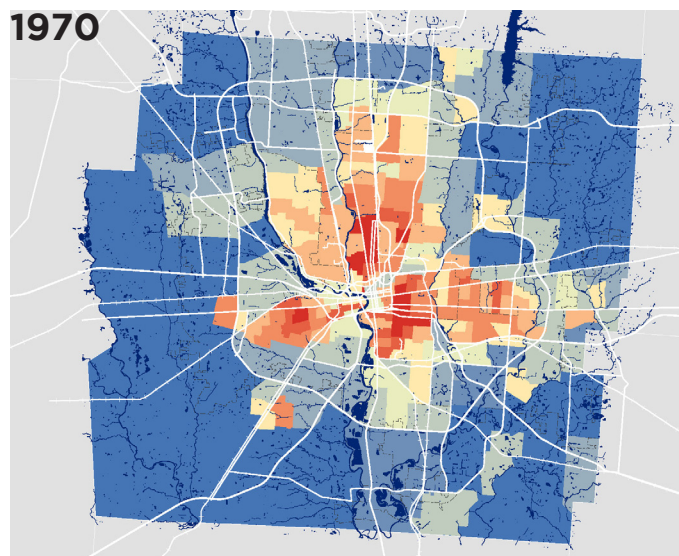
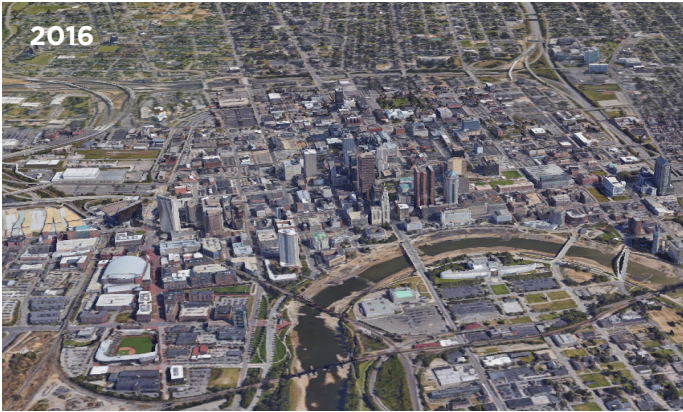


FIGURE 1.0.04: LAND USE CHANGES OVER TIME



EXISTING CONDITIONS

1.1 Needs and Opportunities Analysis

To determine the viability of urban agriculture as a land use and for neighborhood revitalization, the existing conditions and opportunities throughout the city were mapped using GIS data. Data was gathered from MORPC, the USDA, 2014 ACS Projected Census Data, the CDC, the City of Columbus, and Franklin County.

Criteria used to identify areas with the highest potential to support urban agriculture was separated into needs and opportunities.

NEEDS

Needs criteria were developed based on several sociocultural, public health and food security factors in which green business and urban agriculture can positively impact. These factors include the following:

Median Household Income (\$)

Low income census tracts with high levels of poverty are located farther, on average, from supermarkets than those in higher income census tracts. Low income neighborhoods also have a greater number of convenience stores, which typically carry low-quality snack foods. (American Journal of Preventive Medicine, Volume 36, Number 1)

Unemployment Rate (%)

Neighborhoods with high percentages of unemployment potentially lack access to meaningful employment opportunities and job skills training.

Households on Food Stamps (%)

Neighborhoods with a high percentage of households on food stamps potentially indicate a need for affordable food sources.

Housing Unit Vacancy Rate (%)

Unmaintained, vacant houses create unsafe conditions and contribute to blight in neighborhoods. These indicate low property values and a lack of demand for real estate.

Food Desert

Access to healthy food retailers has a positive relationship to healthy eating habits among low income and minority populations (American Journal of Preventive Medicine, Volume 36, Number 1).

Retail Food Environment

Low income areas with an abundance of unhealthy food sources, such as fast food and convenience stores, have lower diet quality. (Boone-Heinonen et al.)

Total Appraised Value

The total appraised value of is used as an indicator that urban agriculture and community gardens would be a viable land use.

OPPORTUNITIES

Areas with opportunity to develop urban agriculture were based on physical factors that relate to access, location, and land availability.

Public Transportation Access

Proximity to a COTA bus stop facilitates access by those who do not own a car.

Premium Transportation Access

Premium transportation access is an opportunity based on current planning efforts and construction projects within the City.

Proximity to Vacant Parcels

Vacant parcels indicate land availability and low property values.

Proximity to Community Centers, Recreation Centers or Libraries

Civic amenities with consistent and high volumes of traffic create opportunities for CSA distribution, direct to consumer sales, education programs, or job skills training.

SITE SELECTION CRITERIA

The site selection criteria was developed to identify areas throughout the City to focus urban agriculture policy and programs. These areas were developed based on needs and opportunities.

FIGURE 1.1.01: SITE SELECTION SCORECARD

NEED	NEIGHBORHOOD CONTEXT											
		Less Than 5%	5-10%	10-15%	15-20%	20-25%	25-30%	30-35%	35-40%	40-45%	45-50%	Greater than 50%
	Unemployment	0	1	2	3	4	5	6	7	8	9	10
		Greater than \$45k	40-45k	35-40k	30-35k	25-30k	20-25k	18-20k	16-18k	14-16k	12-14k	Less than 12k
	Median Household Income	0	1	2	3	4	5	6	7	8	9	10
		Less Than 5%	5-10%	10-15%	15-20%	20-25%	25-30%	30-35%	35-40%	40-45%	45-50%	Greater than 50%
	Vacancy Rate	0	1	2	3	4	5	6	7	8	9	10
	FOOD ACCESS											
		Less Than 5%	5-10%	10-15%	15-20%	20-25%	25-30%	30-35%	35-40%	40-45%	45-50%	Greater than 50%
	% Food Stamps	0	1	2	3	4	5	6	7	8	9	10
OPPORTUNITY		Greater than 10					Between 0 and 10					0
	Retail Food Environment	0					5					10
		Not a Food Desert					LILA Tract - .5 Mile					LILA Tract - 1 Mile
	Food Desert	0					5					10
	SITE											
		Greater than \$50,000	\$45,000-\$50,000	\$40,000-\$45,000	\$35,000-\$40,000	\$30,000-\$35,000	\$25,000-\$30,000	\$20,000-\$25,000	\$15,000-\$20,000	\$10,000-\$15,000	\$5,000-\$10,000	Less Than \$5,000
	Appraised Value	0	1	2	3	4	5	6	7	8	9	10
	HEALTH											
	Diabetes	0	1	2	3	4	5	6	7	8	9	10
	Obesity	0	1	2	3	4	5	6	7	8	9	10
NEED	LOGISTICS											
		>.5 Mile (10 min walk)			< 10 min walk			< 5 min walk				Within 500 Ft
	Public Transportation Access	0			3			7				10
		>.5 Mile (10 min walk)			< 10 min walk			< 5 min walk				Within 500 Ft
	Premium Transportation Access	0			3			7				10
		No Water Access					Water access					Existing Tap
	Water Access (Not Mapped)	0					5					10
	SITE											
		>.5 Mile (10 min walk)			< 10 min walk			< 5 min walk				Within 500 Ft
	Proximity to Vacant Lots	0			3			7				10

EXISTING CONDITIONS

1.1 Needs and Opportunities Analysis

FIGURE 1.1.02: MEDIAN HOUSEHOLD INCOME

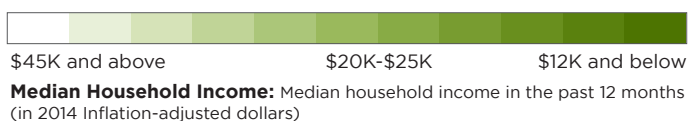
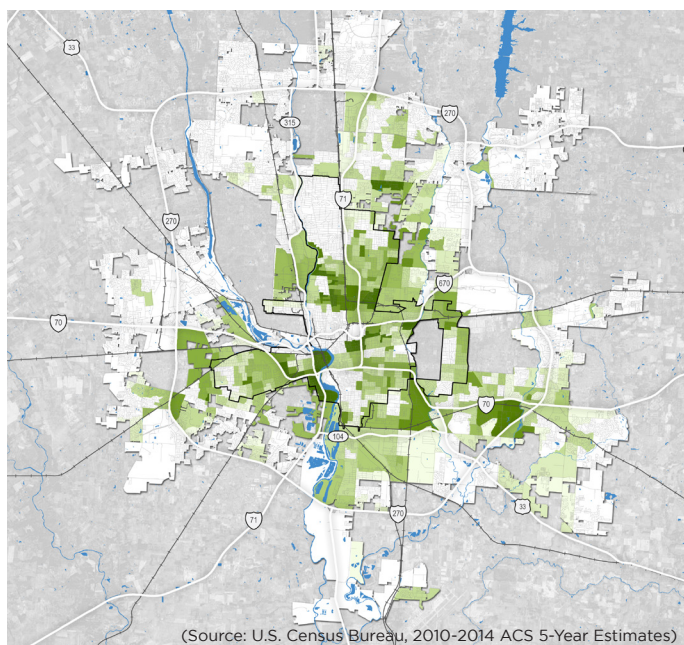


FIGURE 1.1.03: HOUSING UNIT VACANCY RATE

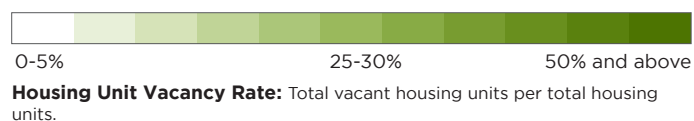
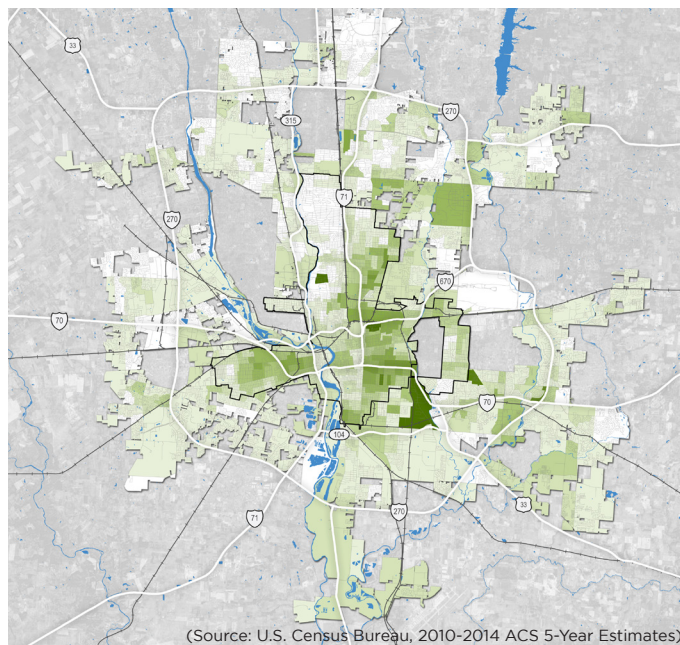


FIGURE 1.1.04: UNEMPLOYMENT RATES

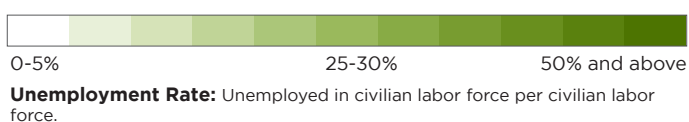
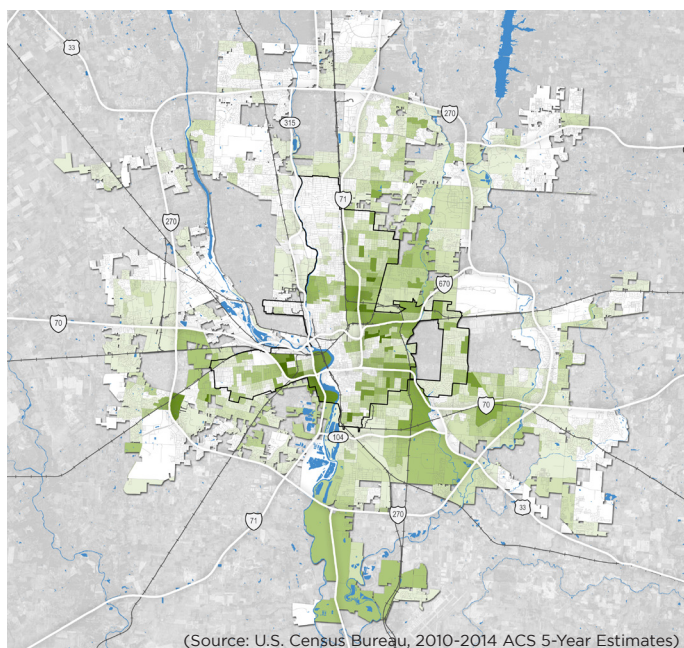


FIGURE 1.1.05: HOUSEHOLDS ON FOOD STAMPS

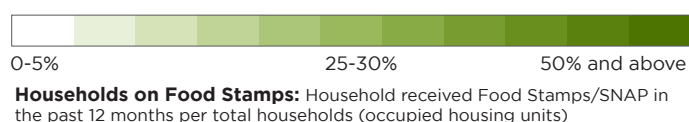
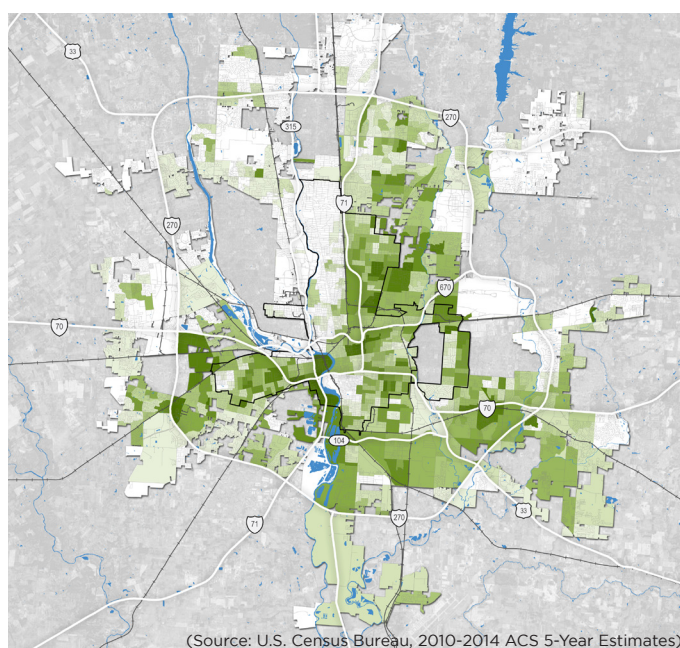
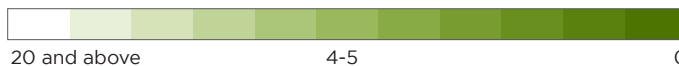
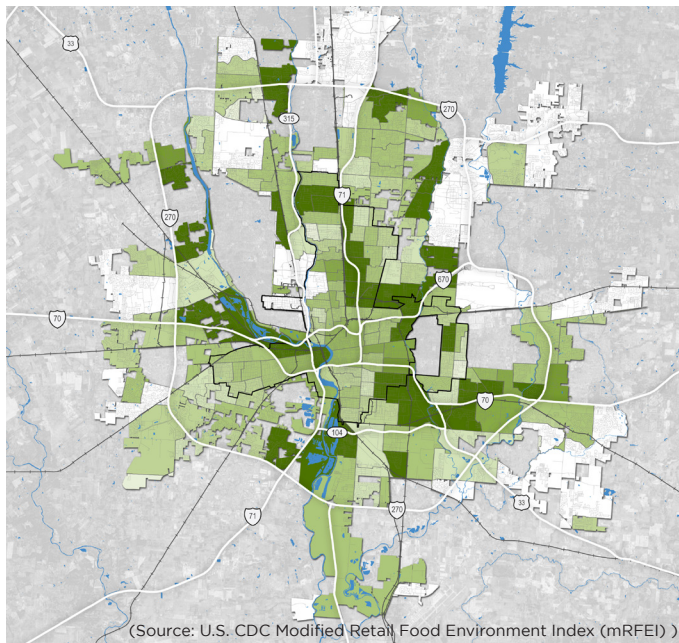
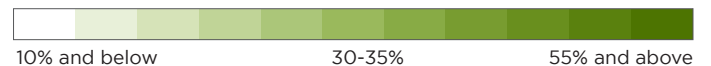
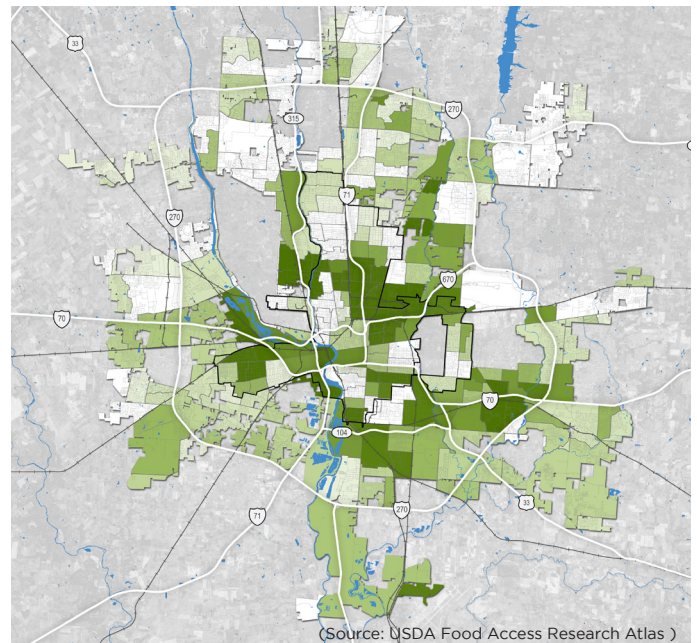


FIGURE 1.1.06: RETAIL FOOD ENVIRONMENT



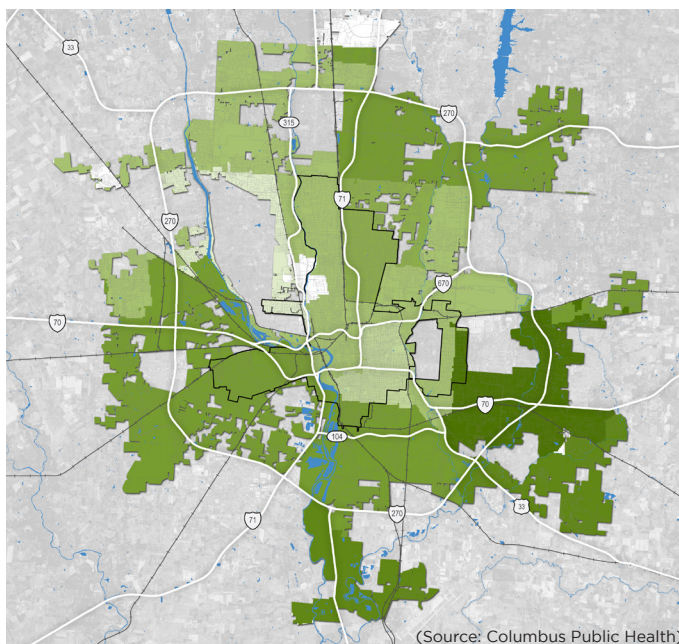
Retail Food Environment: A score of 0 is a food desert, lower scores indicate food swamps.

FIGURE 1.1.07: FOOD DESERTS



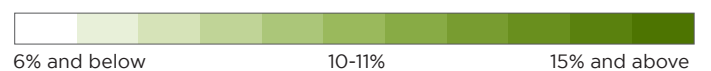
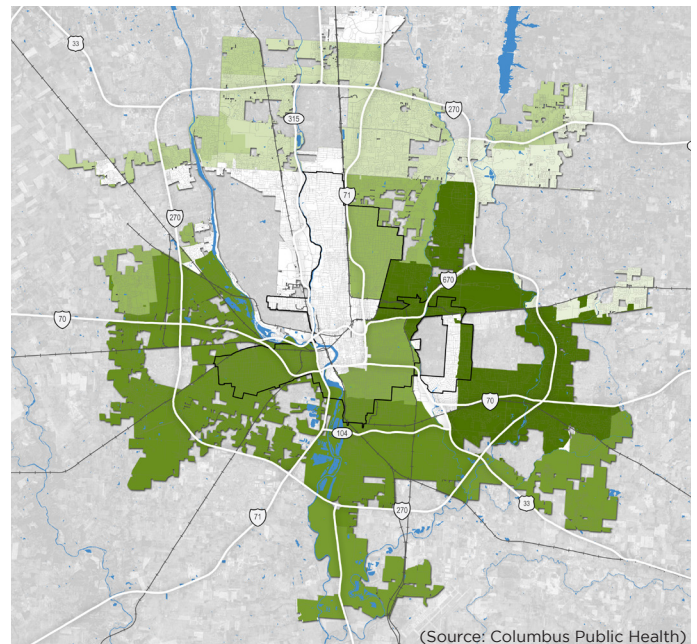
Food Deserts: Percent of population with poverty rate of 20% or more that live more than .5 mile from grocery or supermarket.

FIGURE 1.1.08: OVERWEIGHT/OBESITY RATES



Overweight/Obesity Rate: Percent of the population classified as overweight or obese based on BMI (>25).

FIGURE 1.1.09: DIABETES RATES

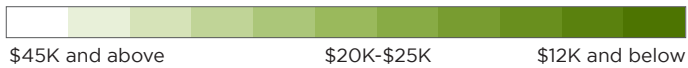
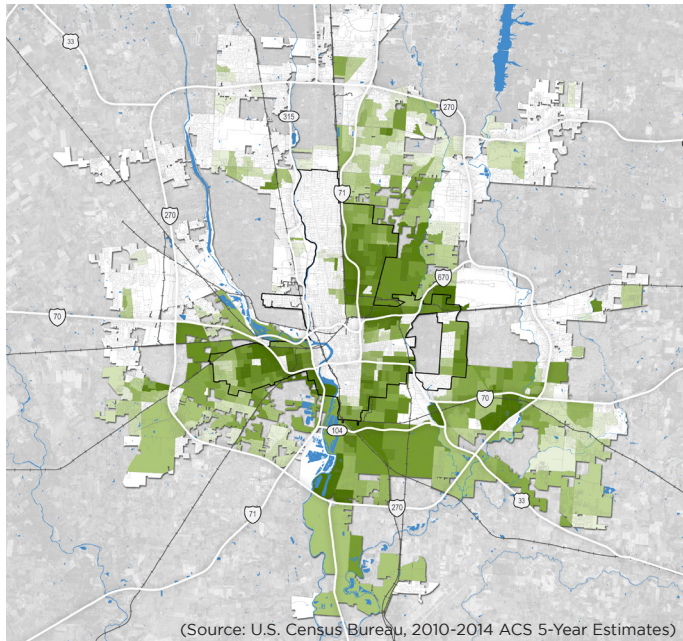


Diabetes Rate: Percent of the population that (has ever been told) have diabetes.

EXISTING CONDITIONS

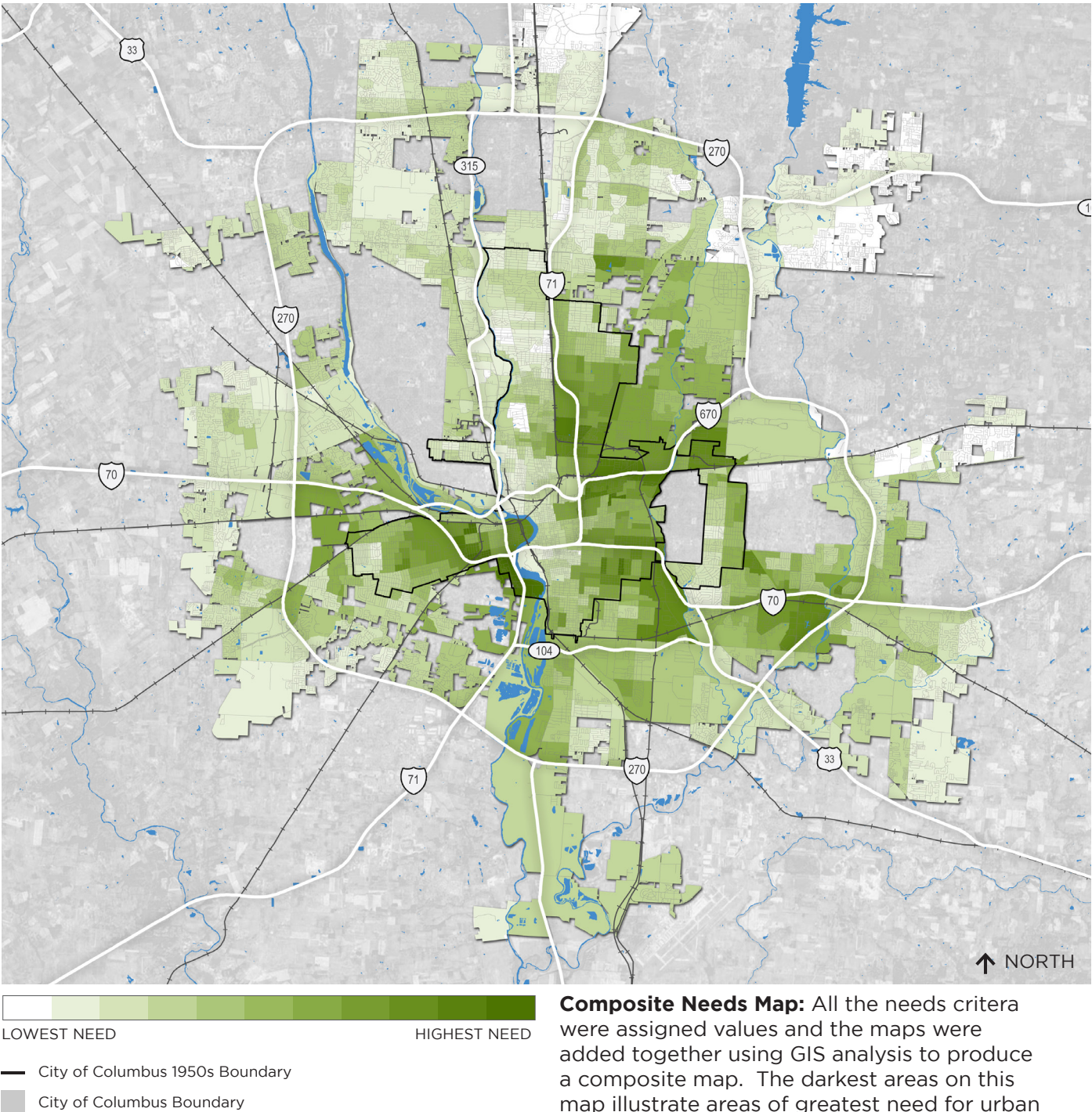
1.1 Needs and Opportunities Analysis

FIGURE 1.1.10: MEDIAN HOUSING UNIT VALUE



Median Housing Unit Value: Median housing unit value (dollars) for owner-occupied housing units (in 2014 Inflation-adjusted dollars)

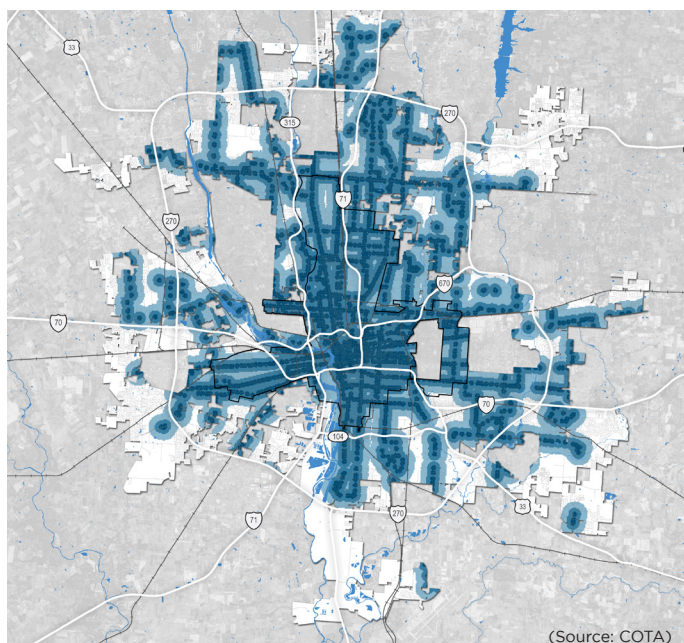
FIGURE 1.1.11: COMPOSITE MAP OF NEEDS



EXISTING CONDITIONS

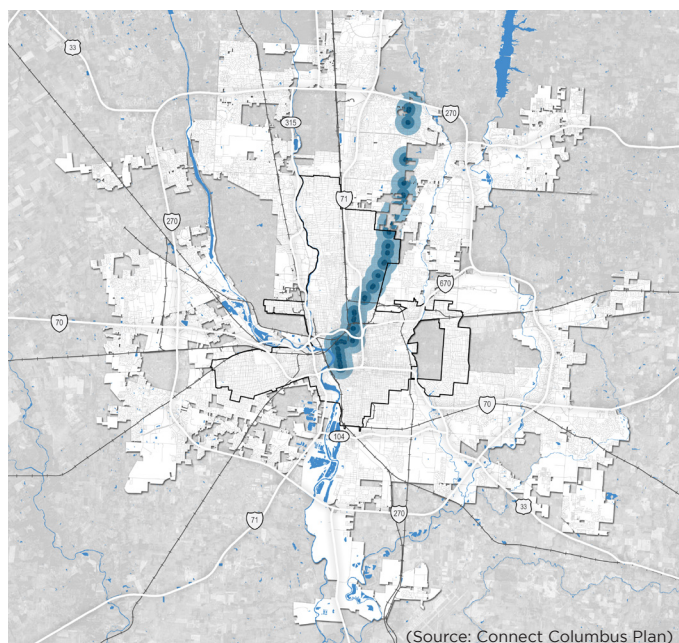
1.1 Needs and Opportunities Analysis

FIGURE 1.1.12: PUBLIC TRANSPORTATION ACCESS



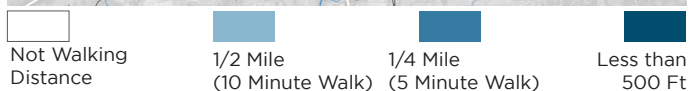
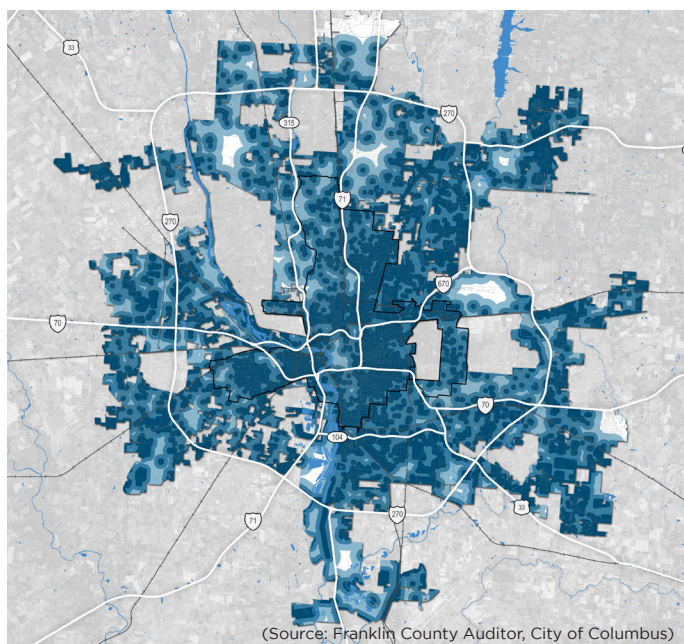
Public Transportation Access: Walking distance and/or time to access transportation opportunities

FIGURE 1.1.13: PREMIUM TRANSPORTATION ACCESS



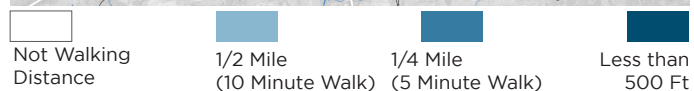
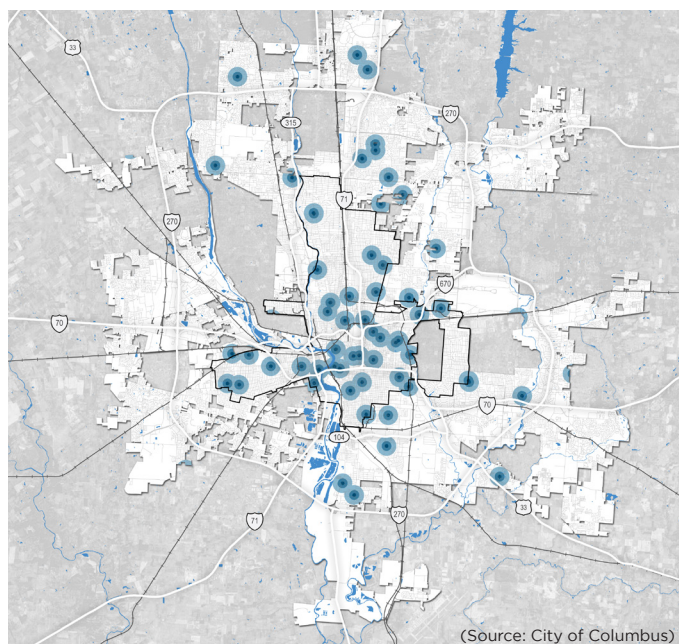
Premium Transportation Access: Walking distance and/or time to access premium transportation opportunities.

FIGURE 1.1.14: PROXIMITY TO VACANT PARCELS



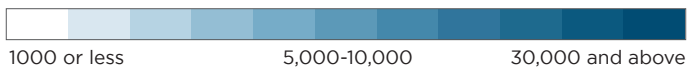
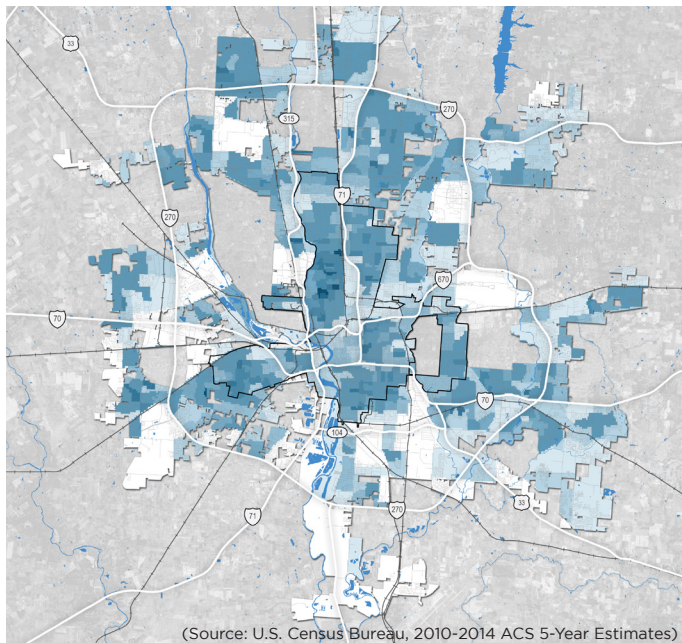
Vacant Parcels: Walking distance and/or time to access vacant parcels

FIGURE 1.1.15: PROXIMITY TO COMMUNITY ANCHORS



Proximity to Community Anchors: Walking distance and/or time to access Recreation or Community Centers.

FIGURE 1.1.16: POPULATION DENSITY



Population Density: Persons per square mile by block group identifies high density areas, or potential markets.

EXISTING CONDITIONS

1.1 Needs and Opportunities Analysis

FIGURE 1.1.17: COMPOSITE MAP OF OPPORTUNITIES

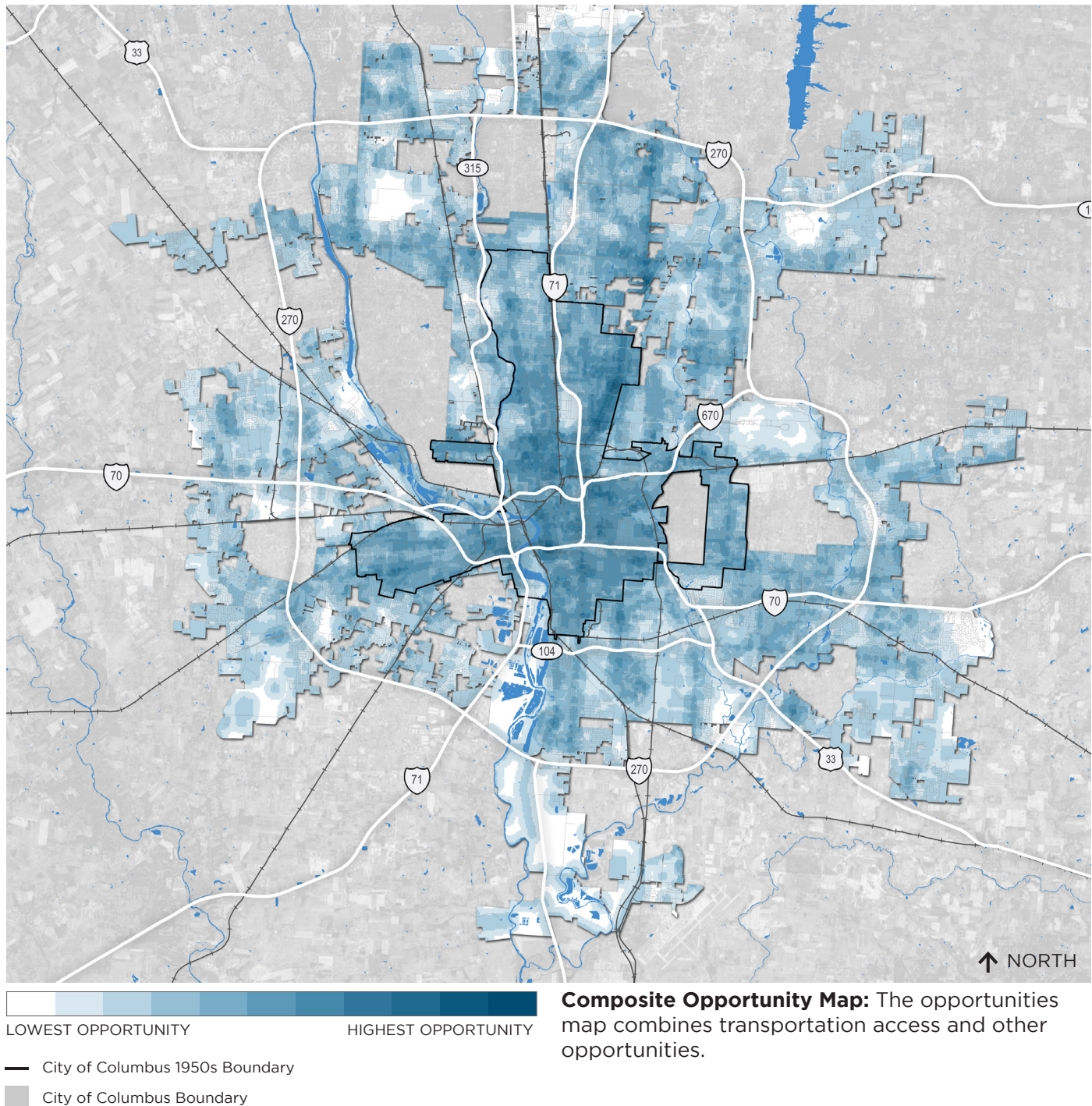
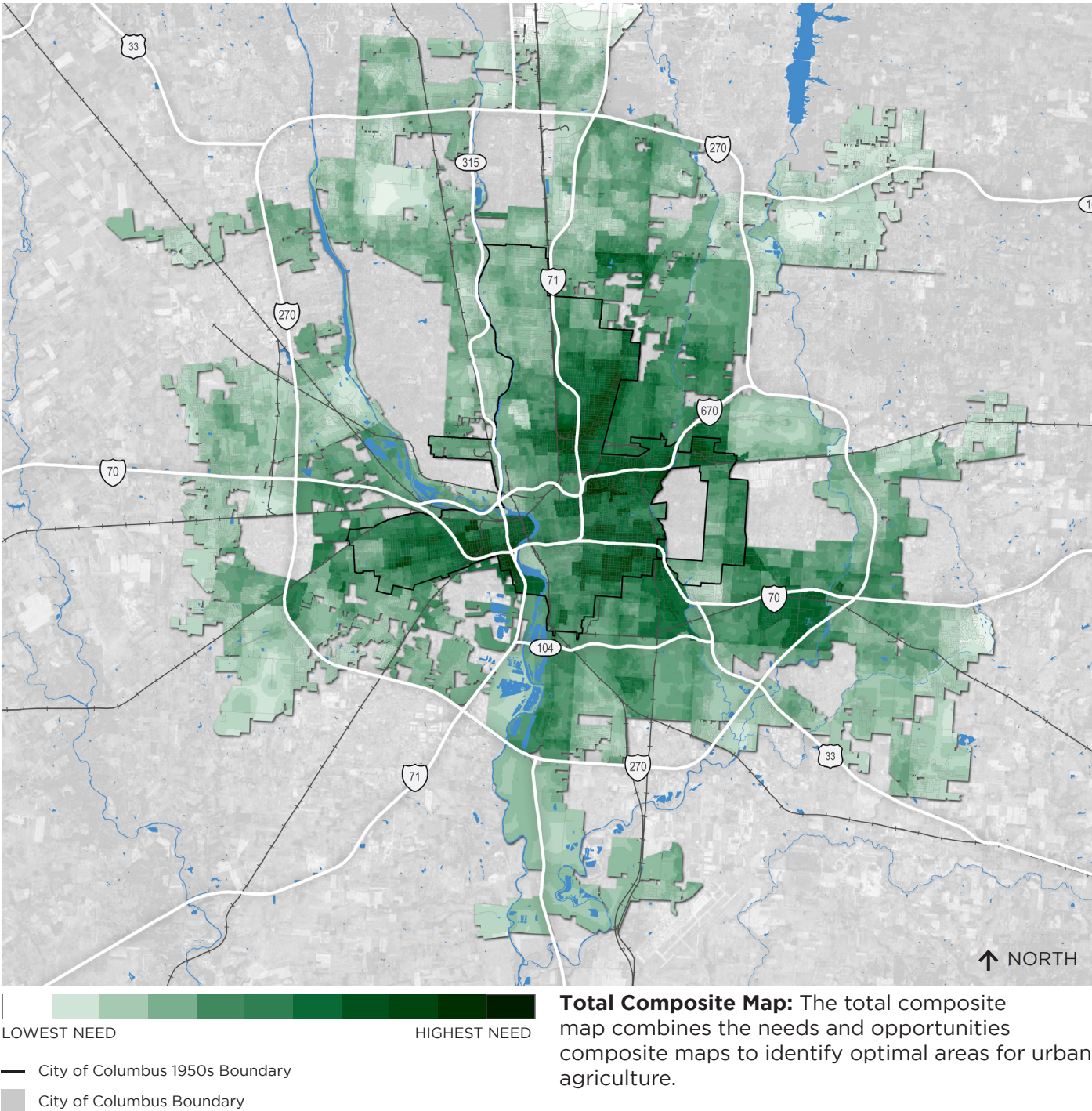


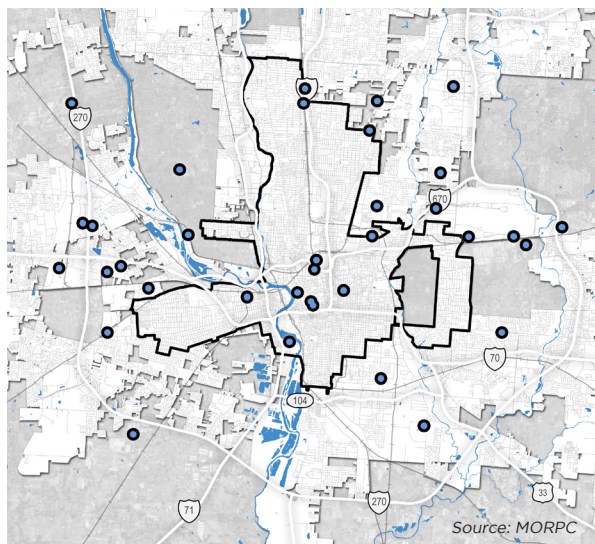
FIGURE 1.1.18: TOTAL COMPOSITE MAP OF NEEDS AND OPPORTUNITIES



EXISTING CONDITIONS

1.2 Local Farms and Green Businesses

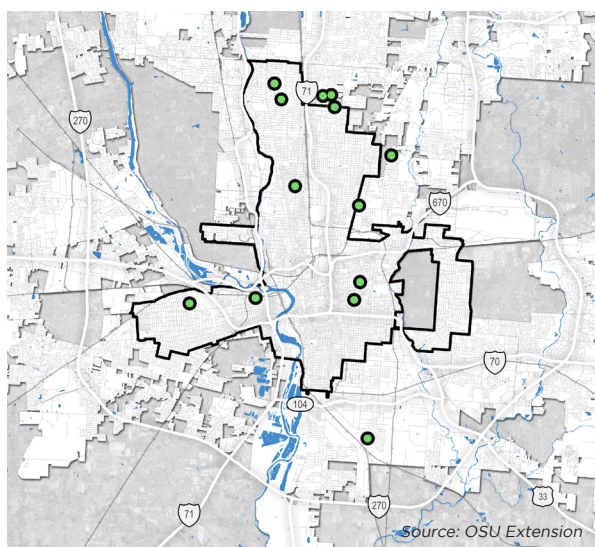
EXISTING CONDITIONS



50+

PROCESSING & DISTRIBUTION

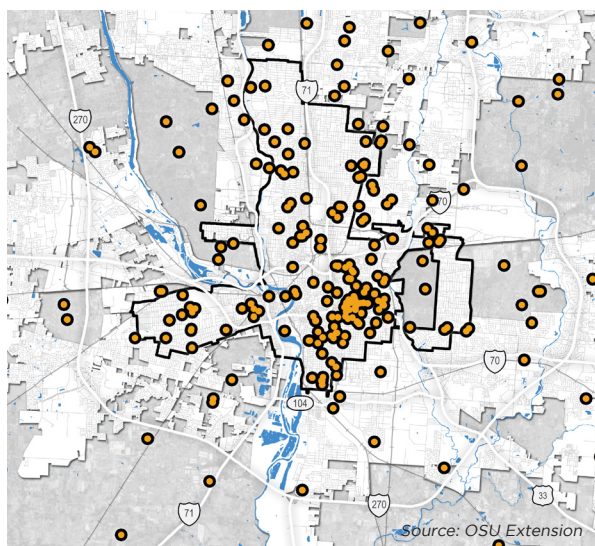
Green businesses shown include for-profit processing and distribution facilities within and around Columbus. Most are located outside the 1950s boundary.



15+

URBAN FARMS

There are over 15 urban farms in Columbus that sell crops to generate revenue. These are operated as non-profits, social enterprises, or entrepreneurial models. Most are located outside the 1950s boundary.



250+

COMMUNITY GARDENS

There are over 250 community gardens in and around Columbus. The majority are located within the 1950s boundary.



EXISTING FOOD PROCESSING AND DISTRIBUTION FACILITIES

ILancaster Colony	Maramor Chocolates
Mars Petcare	Auburn Dairy Products Inc.
T Marzetti Company	
T. Marzetti Co.	Meat Packers Outlet
Noni Tahitian International Inc.	Glory Foods
Glazer's of Ohio	Santina Foods
Anthony-Thomas Candy Co.	Mid West Fresh Foods
Kahiki Foods Inc.	Sanfillippo Produce
T. Marzetti Company	Graffiti Foods Inc.
The Coca Cola Company	Montezuma Brand
Magic Mountain Fun Center	Casa di Carfagna
Herman Falter Packing Co.	Birchwood Foods
1-800 Flowers	DNO Produce
Sunrise Food Store Inc.	Vitale Poultry
The Quality Bakery Co. Inc.	Peggy's Pride
Resch's Bakery	Ezzo Sausage
KARN Meats Inc.	Frito Lay
English Bay Batter Inc.	Katie's Snack Foods
Con Agra Foods Inc.	
Abbot Nutrition	Cajohn's Fiery Foods Co.
Loralies Brownies	Thomas Enterprises
Griffin Industries Inc.	White Feather Farm of Ohio
Tremont Goodie Shop	Blystone Farm Butcher Shop
Simply EZ	Merry Milk Maid/Happy Chicken
Flichia Wholesale Distributing	

EXISTING URBAN FARMS

Wheatland Farm
 Clarfield Farm
 Swainway Urban Farm
 Harmonious Acres
 Franklinton Gardens
 Project Aquastar
 Four Seasons City Farm
 Foraged and Sown
 Over the Fence Urban Farm
 Peace Love and Freedom Farm
 Green Goddess (was Weurful)
 Tiger Mushroom Farm
 John the Wine Guy
 Woodland Urban Farm
 Cooke Forest Edibles and Medicinals
 Italian Village Urban Farm

EXISTING CONDITIONS

1.2 Local Farms and Green Businesses

PROJECT AQUASTAR



LOCATION: Linden, Columbus, Ohio
TYPE: Community center (St. Stephen's Community House)
ECONOMIC MODEL: Non-profit; Social Enterprise
GROWING METHOD: In-ground, hoop-houses, aquaponics — using permaculture growing methods
CROPS: Leafy greens, rhubarb, herbs, tomatoes, honey, fish
LOT SIZE: 1 acre
DISTRIBUTION: Community center
EMPLOYEES/JOB'S CREATED: 1 full-time employee, 8-10 Central Ohio Workforce Investment Corporation (COWIC) employees seasonally; volunteer labor

SWAINWAY URBAN FARM



Photo: Google Earth



Photo: OSU Extension



Photo: OSU Extension



Photo: <http://www.swainway.com/>



Photo: <http://www.swainway.com/>



Photo: <http://www.swainway.com/>

LOCATION: Clintonville, Columbus, Ohio
TYPE: Residential Lot and Indoor Growing in Warehouse
ECONOMIC MODEL: For-profit
GROWING METHOD: In-ground, raised beds, hoop-houses, indoor growing
CROPS: Mushrooms (separate site, indoors), microgreens, seedlings, specialty vegetables
LOT SIZE: +/- 13,000 square feet (.30 acres) and a warehouse (off site)
DISTRIBUTION: Farmers markets, wholesalers
PRODUCTION: +/- \$100,000 in sales
EMPLOYEES/JOB'S CREATED: 2 full-time employees; several volunteers/family members and part-time business partners

EXISTING CONDITIONS

1.2 Local Farms and Green Businesses

ITALIAN VILLAGE URBAN FARM



LOCATION: Jeffrey Park, Italian Village, Columbus, Ohio
TYPE: Vacant/available land
ECONOMIC MODEL: Social enterprise, low-profit
GROWING METHOD: In-ground, raised beds, hoop-house
CROPS: Specialty vegetables, carrots, assorted pole beans, peppers, herbs, cherry tomatoes
LOT SIZE: 2 acres
DISTRIBUTION: Restaurant(s) and brew pub within Jeffrey Park development
EMPLOYEES/JOBS CREATED: 2 full time employees; volunteer labor

CLARFIELD FARM



LOCATION: Marion-Franklin, Columbus, Ohio
TYPE: Former school lot
ECONOMIC MODEL: Social enterprise (Affiliated with Mid-Ohio Foodbank)
GROWING METHOD: In-ground, raised beds, hoop-house
CROPS: Assorted vegetables
LOT SIZE: 4 acres
DISTRIBUTION: Restaurants, markets, retailers
PRODUCTION: Approximately 50,000 lbs/year
EMPLOYEES/JOBS CREATED: 1-2 full-time employees; volunteer labor

4TH STREET FARMS



LOCATION: Weinland Park, Columbus, Ohio
TYPE: Vacant residential lot
ECONOMIC MODEL: Non-profit; Community garden
GROWING METHOD: In-ground, raised beds
CROPS/PRODUCTS: Microgreens, kale, beans, tomatoes, honey, sauces
LOT SIZE: 7,000 square feet (0.17 acres)
DISTRIBUTION: Community residents, restaurants, farmers markets

FRANKLINTON GARDENS



LOCATION: West Franklinton, Columbus, Ohio
TYPE: Vacant/land bank lots
ECONOMIC MODEL: Non-profit; Social Enterprise
GROWING METHOD: Raised beds, hoop-houses, in-ground
CROPS: Swiss chard, kale, tomatoes, honey, beets, potatoes
LOT SIZE: Multiple (approx. 2 acres under cultivation)
DISTRIBUTION: Restaurants, CSA, markets, farm stand
EMPLOYEES/JOBS CREATED: 2 full-time employees; Americorp volunteers; Garden Interns

THE COMMISSARY



Photo: <http://www.thecommissarycolumbus.com/>

LOCATION: Columbus, Ohio
TYPE: Food business incubator
ECONOMIC MODEL: For-profit
PRODUCTS/SERVICES: Prep kitchens, meat licensing, food truck storage, dry goods, freezer, cooler, and equipment storage. "Start Your Business" classes, Private meeting and class space

FOOD FORT



Photo: thefoodfort.org

LOCATION: Columbus, Ohio
TYPE: Food business incubator
ECONOMIC MODEL: Social enterprise
 Created and operated by the Economic and Community Development Institute (ECDI).
PRODUCTS/SERVICES: Licensed commissary space to mobile food vehicle owner-operators and operate a state-of-the-art commercial kitchen. Bakery wholesale, frozen food, cold storage, and cannery license. Mobile food service support ranging from storage to helping entrepreneurs through the startup phase.

SANFILLIPO PRODUCE COMPANY



Photo: MORPC

LOCATION: Port Columbus, Columbus, Ohio
TYPE: Local and regional food supplier
ECONOMIC MODEL: For-profit, family operated
PRODUCTS/SERVICES: Since 1899. Supplies restaurants, social organizations, and other establishments in Central Ohio with grocery goods from around the world. "Ohio 1st" is Sanfillipo's Local Food Initiative. Partners with growers all over the state to bring fresh, responsibly sourced goods to market. Aggregates, markets, and distributes the local produce.

HERMAN FALTER PACKING CO.



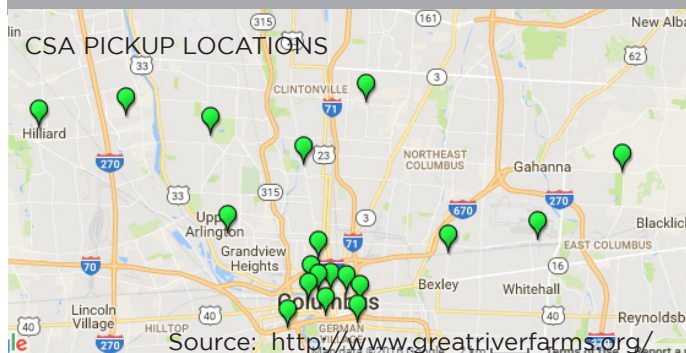
Photo: MORPC

LOCATION: Columbus, Ohio
TYPE: Meat packing and processing
ECONOMIC MODEL: For-profit
DISTRIBUTION: Independent Stores And Butchers
PRODUCTS/SERVICES: Pork and beef products, both fresh and processed

EXISTING CONDITIONS

1.2 Local Farms and Green Businesses

GREAT RIVER ORGANICS (GRO)



LOCATION: Columbus, Ohio

TYPE: Certified organic, multi-farm CSA

ECONOMIC MODEL: Farmer-owned, non-profit corporation

PRODUCTS: Certified organic produce grown by Central Ohio farmers

DISTRIBUTION: Direct to consumer through CSA. Comprised of 7 Central Ohio farms, all certified organic. Offers 30 week Market Bag. CSA is delivered to mostly corporations, including Nationwide, Cardinal Health and Limited Brands. Also provides marketing services for farms.

CASE STUDY: DNO PRODUCE



Photo: Google Street View



Photo: Google Street View



Photo: MORPC



Photo: MORPC



Photo: MORPC

LOCATION: Columbus, Ohio

TYPE: Produce Processor, Wholesale Produce Distributor

ECONOMIC MODEL: For-profit

PRODUCTS: Ready-to-eat/cook fresh cut fruits and vegetables

DISTRIBUTION: Schools, grocers, wholesale and food service distributors. Columbus facility has storage, processing and distribution equipment. Owns a fleet of refrigerated vehicles for produce distribution. Specializes in customized retail and food service packs and single serve packs for schools

EXISTING CONDITIONS

1.3 Best Practices



BENCHMARK: GROWING POWER



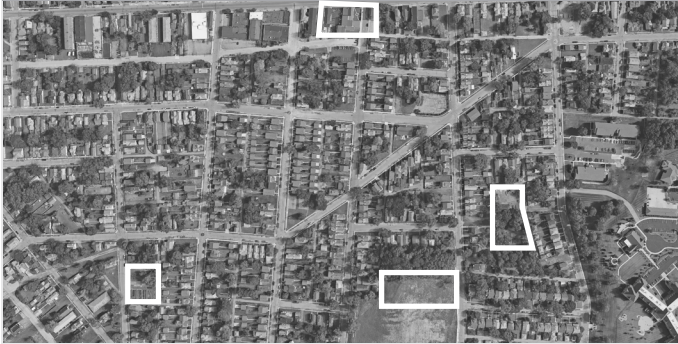
LOCATION: Milwaukee, Wisconsin + Chicago, Illinois
TYPE: Original location at previous nursery lot
ECONOMIC MODEL: Non-profit; social enterprise
GROWING METHOD: greenhouses, hoop-houses, aquaculture
CROPS/PRODUCTS: Compost, chickens, micro-greens, fruit/vegetables
LOT SIZE: +/- 3 acres (headquarters)
DISTRIBUTION: Schools, farmers market, farm stand
PRODUCTION: +/- 450,000 lbs/year
EMPLOYEES/JOBS CREATED: +/- 65 estimated total

BENCHMARK: FOOD FIELD



LOCATION: Detroit, Michigan
TYPE: Former School Lot
ECONOMIC MODEL: For-profit
GROWING METHOD: In-ground, aquaponics, hoop-houses
CROPS/PRODUCTS: Chickens, fruit and vegetables, nuts, catfish and blue gill, eggs, honey, pickles, salsa, cider, and many other value added products
LOT SIZE: +/- 4 Acres
DISTRIBUTION: CSA; pop-up dinners; farm stand; farmers markets
PRODUCTION: 14,000 lbs/year
EMPLOYEES/JOBS CREATED: 2 (the creators)

CASE STUDY: MISSION OF MARY



LOCATION: Twin Towers, Dayton, Ohio
TYPE: Old Elementary School Lot
ECONOMIC MODEL: 501c3 Not-for-profit
GROWING METHOD: In-ground, raised beds, movable, high-tunnels, hoop-houses
CROPS: Various greens, beans, tomatoes, fruits
LOT SIZE: Approximately 2 Acres (total of several parcels)
DISTRIBUTION: CSA (subsidized and un-subsidized); farmers markets; soup kitchens; farm stand
PRODUCTION: 14,000 lbs/year (added 50% more capacity with 2016 expansion)
EMPLOYEES/JOB'S CREATED: 2, targeting additional full-time hire in 2016

EXISTING CONDITIONS

1.3 Best Practices



Photo: <http://www.farmedhere.com/>

BENCHMARK: FREIGHT FARMS



Photo: <http://www.freightfarms.com/new-gallery/>

LOCATION: Boston, Massachusetts
TYPE: Shipping container
ECONOMIC MODEL: For-profit
GROWING METHOD: Hydroponic
CROPS: Lettuce, leafy greens, herbs
LOT SIZE: 320 square feet per container
DISTRIBUTION: Restaurants, markets, grocery stores
PRODUCTION: 6,000-12,000 lbs/year
EMPLOYEES/JOBS CREATED: 1 every 4-5 containers

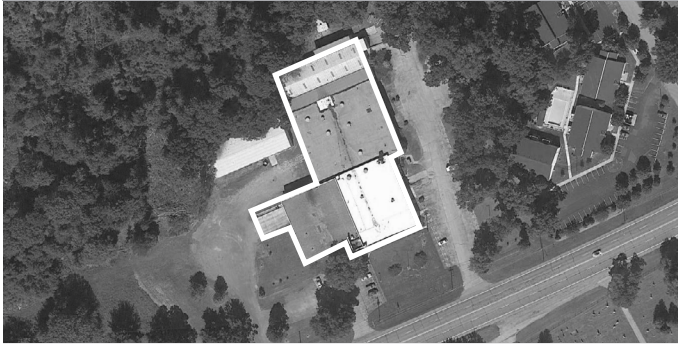
BENCHMARK: FARMED HERE



Photo: <http://www.farmedhere.com/>

LOCATION: Chicago, Illinois
TYPE: Repurposed warehouse
ECONOMIC MODEL: For-profit
GROWING METHOD: Aquaponic, Aeroponic
CROPS/PRODUCTS: Basil, arugula, salad mixes, dressings, herbs (USDA Organic)
LOT SIZE: +/- 3 acres
DISTRIBUTION: Grocery stores, markets
PRODUCTION: 1,000,000 lbs/year
EMPLOYEES/JOBS CREATED: 40

CASE STUDY: GREEN SPIRIT FARMS



LOCATION: New Buffalo, Michigan
TYPE: Repurposed warehouse
ECONOMIC MODEL: For-profit
GROWING METHOD: Hydroponic; researching new methods (rotary growing units)
CROPS: Basil, leafy greens, peppers, tomatoes, stevia, strawberries, brussel sprouts
LOT SIZE: +/- 2 Acres
DISTRIBUTION: Grocery stores, restaurants, a small "Harvest Market"
PRODUCTION: +/- 1,000,000 lbs/year
EMPLOYEES/JOBS CREATED: 15-20 (additional 2-3 at their Detroit facility)

EXISTING CONDITIONS

1.3 Best Practices



STAY FRESH FOODS



LOCATION: Pennsauken, NJ

TYPE: High Pressure Processing and Value-Added Services

ECONOMIC MODEL: For-profit

PRODUCTS/SERVICES: Assistance with product development, focus groups, and packaging consulting in a "one-stop-shop" model

REGIONAL ACCESS



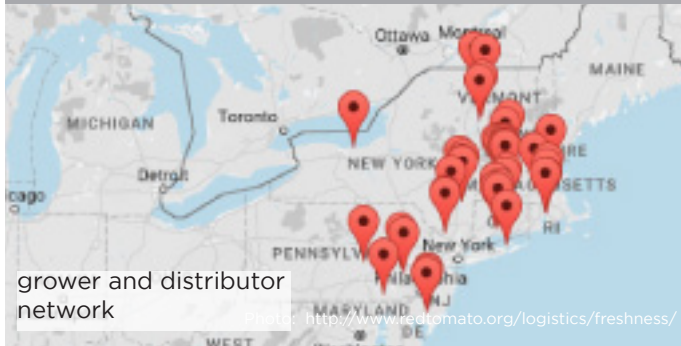
LOCATION: Ithaca, NY

TYPE: Distribution and logistics

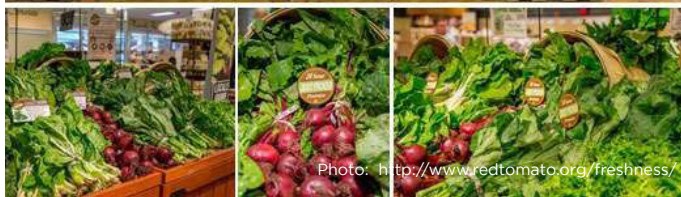
ECONOMIC MODEL: For-profit

DISTRIBUTION: Independent retailers and restaurants, cooperative markets, grocery stores, wineries, buying clubs, institutions and individuals

CASE STUDY: RED TOMATO



RED TOMATO
righteous produce!™



LOCATION: Plainville, Massachusetts

TYPE: Logistics

ECONOMIC MODEL: Non-profit

PRODUCTS: Fresh fruits and vegetables

DISTRIBUTION: Local grocery stores, produce distributors, neighborhood restaurants, schools and colleges

PRODUCTS/SERVICES: Operates a decentralized supply chain of farmers, distributors or 3rd party logistics companies; Primarily focused on sales, marketing and product development; 24-hour-farm-to-store promise; Helped develop "Eco-Fruit" Certification program, a "ecology-based farming and certification program created by local farmers, scientific advisers and Red Tomato"

EXISTING CONDITIONS

1.3 Best Practices

- Cleveland has +/- 12,000 vacant lots making urban agriculture a viable land use
- Cleveland distinguishes gardens as Community or Market Gardens
- Community Gardens participate in City sponsored Summer Sprouts program, operated by OSU Extension
- Gardening for Greenbacks program grants up to \$3,000 to those that operate a for-profit urban garden
- Some farms connect directly to hydrants as a less expensive way to obtain water
- Cleveland's Urban Agriculture Innovation Zone in the "Forgotten Triangle" is one of the largest urban agriculture districts in the US - an informal overlay encourages urban agriculture as a preferred land use to address the high vacancy and provide economic development
- There is a belief that "every City should have green space set aside for growing food."

BEN FRANKLIN COMMUNITY GARDEN



Photo: MKSK

LOCATION: Old Brooklyn Neighborhood, Cleveland, Ohio
ECONOMIC MODEL: Community garden
LOT SIZE: 4.77 Acres

- > Oldest community garden in Cleveland
- > Connected to Elementary school
- > Affiliated with Summer Sprouts program

OHIO CITY FARM



Photo: MKSK

LOCATION: Ohio City Neighborhood, Cleveland, Ohio
ECONOMIC MODEL: Social enterprise, Incubator farm
LOT SIZE: 6 Acres

- > Run by Cuyahoga Metropolitan Housing Authority, Ohio City Inc. (CDC) leases from CMHA and leases out plots
- > Property is located adjacent to the Cuyahoga river on unstable land due to erosion and unsuitable for development
- > Refugee Response and CHMA Green Team currently only tenants

RIISING HARVEST FARMS



Photo: MKSK

LOCATION: Old Brooklyn Neighborhood, Cleveland, Ohio
ECONOMIC MODEL: Social enterprise, non-profit
LOT SIZE: 2.3 Acres
EMPLOYEES/JOB'S CREATED: 2 Full time staff

- > Hoop houses, farm stand, community garden plots
- > Subsidiary of Koinonia Homes, Inc., a 501(c)3
- > GAP compliant
- > Employment and education for developmentally disabled

HUB 55



Photo: MKSK

LOCATION: St. Clair Superior Neighborhood, Cleveland, Ohio

ECONOMIC MODEL: For-profit

BUILDING SIZE: 42,000 SF

- > Privately funded mixed use building
- > Brewery, tap room, Cafe, food market, office, and rentable space

STANARD FARM



Photo: MKSK

LOCATION: St. Clair Superior Neighborhood, Cleveland, Ohio

ECONOMIC MODEL: Social enterprise, non-profit

LOT SIZE: 2.5 Acres

- > Hoop houses, Food Innovation Center
- > Operated by Cleveland Crops, Cuyahoga County Board of Developmental Disabilities

VILLAGE FAMILY FARM



Photo: MKSK

LOCATION: Hough Neighborhood, Cleveland, Ohio

ECONOMIC MODEL: For-profit, community garden

LOT SIZE: 0.85 Acres

EMPLOYEES/JOB CREATED: 5 Employees

- > Hoop houses, seasonal farmers market
- > Started as a community garden adjacent to site, expanded to for-profit production/farm market
- > USDA EQUIP funded hoop houses and partnership with Fair Food Network (hoop house specialist)

KINSMAN FARM



Photo: MKSK

LOCATION: Kinsman Neighborhood, Cleveland, Ohio

ECONOMIC MODEL: Incubator Farm

LOT SIZE: 6 Acres

- > Part of 28 acre Urban Agriculture Innovation Zone
- > Operated by OSU Extension, all participants complete OSU Master Gardener Training and need formal business plan
- > 1/4 acre parcels are leased from West Creek Conservancy

SECTION 2

INFLUENCING FACTORS

Section 2 discusses various regulatory and economic factors which influence green business and urban agriculture in Columbus. Federal, state, and local regulatory factors are reviewed, including regulations related to developing products for the market, health code implications, and larger supply-chain regulations. These existing conditions were used to identify policy barriers for operators and City officials.

Macro and micro economic factors related to green business and urban agriculture are reviewed to identify broader trends in the food system as well as local opportunities for investment, market development, and efficiencies.

BACKGROUND

2.0 Federal and State Regulatory Factors

OVERVIEW

Sections 2.3 and 2.4 give a brief overview of the many federal, state and local regulations that must be considered in any venture concerning food growth, processing, distribution, and sales. Regulations are discussed in order to provide context for local food systems planning. These sections do not provide a comprehensive list of regulations nor should they be used for food business planning. Please refer to the sources cited in each heading for more detailed information on federal, state and local regulations.

FOOD REGULATIONS AND URBAN FARMS

Urban farm profitability is largely determined by proximity to dense populations and an abundance of retail market opportunities found in an urban environment. In addition to marketing fresh, unprocessed fruits and vegetables directly to consumers, the most successful urban farms also add value to the products which they produce through some form of processing. For urban farms to be successful marketers of their products, they must understand and comply with food regulations which are developed by federal agencies such as USDA and FDA, approved by congress, and implemented by state and local agencies such as the Ohio Department of Agriculture and public health departments.

REGULATORY ADMINISTRATION

Food-safety standards are essentially the same across the country. The responsibility for regulating the standards is divided among federal, state, and local agencies. The U.S. Food and Drug Administration, for example, is responsible for administering the Food Safety Modernization Act, but the USDA Food Safety Inspection Service is responsible for the safety of commercial meat, poultry, and eggs. And while the Ohio Department of Agriculture (ODA) operates its own meat-inspection program, it is required to be equal to or greater than USDA standards. It can be more stringent, but must not be less stringent. Likewise, ODA administers cottage food rules for Ohio and is responsible for the safety of food sold at farmers markets, but local health departments interpret and enforce those standards.

Urban agriculture producers must understand federal and state regulations as they apply to growing, selling, preparing, and processing food for general consumption. These regulations come from organizations such as the USDA and Ohio Department of Agriculture and regulate how foods are brought to the marketplace and general public. Their purpose is to protect the general health, safety and welfare of consumers. Many regulations are related to value-added products. These include canning,

labeling, baking, and packaging processes that help identify contents, call out substitutes or modifications, list nutritional information and ingredients, and provide contact information and place of origin for processors and distributors.

LOCAL REGULATORY SUPPORT

The Columbus/Franklin County Local Food Action Plan recommends a city/county “local food team” and a “food supply connector” position to guide implementation of the plan. It would be very valuable for the City of Columbus to have an expert on food safety issues to help farms and food based businesses navigate the food-safety system and direct people to the appropriate agency.

FEDERAL & STATE REGULATIONS

Agricultural production (Food Safety Modernization Act)

Voluntary certification and audit programs (Good Agricultural Practices, Good Handling Practices)

Labeling requirements for direct and wholesale sales of fresh & processed foods

Licensing requirements for processing, production and packaging

Food service and prepared foods

Cottage food regulations

Foods permitted to be manufactured for sale or distribution

LOCAL REGULATIONS

Land Use is Primary Regulatory Channel

Direct sales to consumers at residential properties is regulated through zoning

Local health codes regulate animal husbandry

FEDERAL FOOD PRODUCTION STANDARDS

“The FDA Food Safety Modernization Act (FSMA), the most sweeping reform of our food safety laws in more than 70 years, was signed into law by President Obama on January 4, 2011. It aims to ensure the U.S. food supply is safe by shifting the focus from responding to contamination to preventing it.”

The Standards for the Growing, Harvesting, Packing, and Holding of Produce for Human Consumption outlines science-based minimum standards for the safe growing, harvesting, packing, and holding of produce on farms.

This includes:

FSMA STANDARDS

Personnel Qualifications

Agricultural water standards

Biological soil amendments

Domesticated and Wild Animals

Equipment, Tools, Buildings, and Sanitation



**FDA FOOD SAFETY
MODERNIZATION ACT**



Photo: MORPC

BACKGROUND

2.0 Federal and State Regulatory Factors

VOLUNTARY AUDIT AND CERTIFICATION PROGRAMS

GAPS, GHP

Good Agricultural Practices (GAP) and Good Handling Practices (GHP) are voluntary audits programs offered by the USDA. These programs verify that fruits and vegetables are produced, packed, handled, and stored as safely as possible in order to minimize risks of microbial food safety hazards.

Producers can use the Produce GAPs Harmonized Food Safety Standard to structure their operations in order to ensure compliance with GAP standards.



Organic Certification

While the USDA is responsible for Organic Certification standards, their intent is not to address food-safety. Organic certification is essentially a branding initiative to guarantee product quality standards for consumers who prefer to buy organic. Farms are certified by 3rd party public or private agencies accredited by the USDA.

"Organic certification verifies that your farm or handling facility located anywhere in the world complies with the USDA organic regulations and allows you to sell, label, and represent your products as organic. These regulations describe the specific standards required for you to use the word "organic" or the USDA organic seal on food, feed, or fiber products. The USDA National Organic Program administers these regulations, with substantial input from its citizen advisory board and the public." (USDA Agricultural Marketing Services)

Exemption for Small Producers

Growers who produce and market less than \$5,000 in sales per year of organically-produced fruits and vegetables are permitted to market such items as "organic" directly to consumers at farmers markets, through CSA's, and other retail sales channels. These items cannot be marketed as "Certified" organic, and cannot contain the USDA Certified Organic seal. The items offered for sale cannot be used to produce value-added items which will be marketed as certified organic.



VALUE-ADDED PROCESSING STANDARDS

The following information is to help inform both City department staff and agricultural entrepreneurs looking for resources related to value-added processing and product delivery.

COTTAGE FOOD RULES

All cottage food products are subject to food sampling conducted by the Ohio Department of Agriculture, or representative the director authorizes, to determine if a food product is misbranded or adulterated. A component of the food sampling conducted under this section may include the performance of sample analyses.

Cottage food products may not be packed using reduced oxygen packaging.

Except for products obtained from a home bakery registered by the Ohio department of agriculture, products from cottage food production operations, and maple syrup, honey, or sorghum products produced as provided in section 3715.021 of the Ohio Revised Code; food prepared in a private home may not be used or offered for human consumption in a food service operation or retail food establishment.

ALLOWABLE COTTAGE FOOD PRODUCTS

- Non-potentially hazardous bakery products
- Jams
- Jellies
- Candy— except for fresh fruit dipped, covered, or otherwise incorporated with candy
- Flavored honey which has been produced by a beekeeper exempt under section 3715.021(A) of the Revised code
- Fruit chutneys
- Fruit butters
- Granola, granola bars, granola bars dipped in candy, if fruit is used in any of these products it must be commercially dried
- Maple sugar produced by a maple syrup producer exempt under section 3715.021(A) of the revised code
- Popcorn, flavored popcorn, kettle corn, popcorn balls, caramel corn, not including popping corn
- Unfilled baked donuts
- Waffle cones and waffle cones dipped in candy
- Pizzelles
- Dry cereal and nut snack mixes with seasonings

- Roasted coffee, whole beans or ground
- Dry baking mixes in a jar, including cookie mix in a jar;
- Dry herbs and herb blends;
- Dry soup mixes containing commercially dried vegetables, beans, grains, and seasonings;
- Dry seasoning blends
- Dry tea blends

A COTTAGE FOOD OPERATION MAY NOT DO ANY OF THE FOLLOWING

- Process potentially hazardous foods
- Process acidified and low acid canned food
- Offer for sale adulterated or misbranded food
- Refuse the taking of samples as authorized by rule 901:3-20-03 of the Administrative Code
- Produce food items not expressly listed in paragraph (A) of rule 901:3-20-04 of the Administrative Code
- Sell cottage food products outside the state of Ohio

Source: Ohio revised code 901:3-20-04 Cottage food products allowed

BACKGROUND

2.0 Federal and State Regulatory Factors

HOME BAKERY LICENSE

A Home Bakery is defined in Chapter 911 of the Ohio Revised Code to mean, “Any person who owns or operates a home bakery with only one oven, in a stove of ordinary home kitchen design and located in a home, used for baking of baked goods to be sold.”

“Home” means the primary residence occupied by the residence’s owner, on the condition that the residence contains only one stove or oven used for cooking, which may be a double oven, designed for common residence usage and not for a commercial usage, and that the stove or oven be operated in an ordinary kitchen within the residence.

PERMITTED FOODS

Permitted foods for home bakeries include non-potentially hazardous foods and potentially hazardous foods.

Non-potentially hazardous bakery products include

- Cookies breads, brownies, cakes, fruit pies, and similar products that do not require refrigeration.

Potentially hazardous bakery products include

- Cheese cakes, cream pies, custard pies, and pumpkin pies.

Potentially hazardous foods are permitted but require refrigeration. These foods require temperature control because they are in a form capable of supporting the rapid and progressive growth of infectious or toxigenic microorganisms.

DISTRIBUTION

Properly labeled Home Bakery products may be sold from a Home Bakery. Home Bakery products may also be served as a food item offered by restaurants. And, Home Bakeries may distribute their products outside of the state of Ohio.

Conversely, commercially produced foods may be sold through grocery stores, convenience stores, farm markets, farmer’s markets, and other retail outlets. Retail outlets are subject to all applicable rules and regulations administered by local health departments, local zoning, and other agencies.

DEFINITIONS IN CHAPTER 901:3-20 OF THE ADMINISTRATIVE CODE:

“**Adulterated**” has the meaning stated in section 3715.59 of the Revised Code.

CFR — Code of Federal Regulations

Cottage food production operation has the same meaning stated in section 3715.01 of the Revised Code

Director means the director of the Ohio Department of Agriculture.

Misbranded has the meaning stated in section 3715.60 of the Revised Code.

CANNERY REGULATIONS

Refer to Ohio Revised Code Chapter 913 for complete information. OSU Extension, MORPC, and the Ohio Department of Agriculture can also assist with understanding and interpreting state and federal regulations. This overview is for general reference only and is not intended to be comprehensive. The list of approved foods is subject to change.

KEY CANNING TERMS

A “cannery” is a place or building where fruits, vegetables, or specialty products are packed in hermetically sealed containers and thermally sterilized. The products are then placed on the market for general consumption as human food, regardless of where the products are sold in commerce.

“Low-acid foods” are any foods, other than alcoholic beverages, with an equilibrium pH greater than 4.6 and a water activity greater than 0.85. Tomatoes and tomato products, having a finished equilibrium pH less than 4.7, are an exception and are not low-acid foods.

“Acidified foods” are either: (1) Foods that have a natural pH of 4.6 or below, or (2) Low-acid foods to which acid or other acid foods are added in order to reach a finished equilibrium pH of 4.6 or below and a water activity greater than 0.85.

- Acidified foods does not include foods that are stored, distributed, or retailed under refrigeration.

“Specialty products” are food products other than fruits, vegetables, and meats that by their natural

characteristics have a potential to produce botulism. Specialty products include, but are not limited to, puddings, gravies, sauces, and fish. (Ohio Revised Code Section 913.01 Commercial cannery definitions)

CANNERY LICENSING

Any person, firm, or corporation engaging in the business of operating a cannery must obtain a license for the operation of each cannery from the director of agriculture.

Kitchen incubators and other shared-use facilities can no longer allow tenants or users to operate under one facility license for FDA processing. Each producer must apply for their own license and be an authorized processor.

License refers to the document issued by the licensor that authorizes a person to operate a food service operation or retail food establishment.

A License holder is the entity that:

- Is legally responsible for the operation of the food service operation or retail food establishment such as the owner, the owner’s agent, or other person; and
- Possesses a valid license to operate a food service operation or retail food establishment.



Photo: AceNet



Photo: AceNet

BACKGROUND

2.0 Federal and State Regulatory Factors

CANNERY LICENSING (CONTINUED)

Licensors means one of the following:

- A board of health or the authority having the duties of a board of health approved under section 3717.11 of the Revised Code;
- The director of agriculture acting under section 3717.11 of the Revised Code or 3717.111 of the Revised Code with respect to licensing retail food establishments; or
- The director of health acting under section 3717.11 of the Revised Code or 3717.111 of the Revised Code with respect to licensing food service operations. (Ohio Revised Code 3717.01 Retail food establishments - food safety operations definitions)

Obtaining a license requires submitting an application along with a \$200 fee. Licenses are issued on the 30th of June and expire on that date each year unless renewed. Licenses must be renewed each year. Renewal is accompanied by a fee as well.

Canneries operating under a license are subject to inspection during any normal business hours. Failure to comply with regulations may cause licenses to be suspended, revoked or violations may have to be corrected to continue carrying a license.

In 2015 the Food Safety Modernization Act effected ODA licensing and regulations with regard to Cannery and Bakery licenses.

Prospective processors interested in developing thermally processed products not exempt under the Ohio Cottage Food Law should schedule time to meet with their regional ODA-FDA inspector



Photo: AceNet



Photo: AceNet



Photo: AceNet

LABELING AND PACKAGING

Labels may be submitted to the Ohio Department of Agriculture Division of Food Safety for review and approval.

The Ohio Department of Agriculture staff can review the labels for compliance before a product goes to market. If labels and packaging are not in compliance with food safety regulations, inspectors can issue a violation. Inspectors routinely visit farmers market to ensure label compliance.

Resources to help with the labeling process:

- Ohio Department of Agriculture and the Farmers Market Management Network have online training materials available for labeling and packaging requirements.
- OSU Direct Marketing team and food system practitioners provide extensive training on all aspects of licensing, labeling and food safety changes.
- Area kitchen incubators can also provide assistance for home-based producers and agricultural producers interested in going to the next level with value-added products not under the Ohio Cottage Food Law requirements.

KEY COMPONENTS TO UNDERSTANDING BASIC REQUIRED FOOD LABELING STANDARDS

Food labels must contain the following components. This list is intended to provide only a basic understanding of food labeling requirements. Refer to the Ohio Department of Agriculture for complete and up-to-date food labeling regulations.

Food label components include:

- **Ingredients listed** by common or usual name in descending order of predominance by weight. The ingredient that weighs the most is listed first, followed by the next heaviest ingredient, with the ingredient that weighs the least listed last. Any ingredient that is composed of two or more ingredients (sub-ingredients) are named individually in parentheses. Ref: CFR 21, Part 101.4
- A **“Statement of Identity,”** i.e. the the name of the food. The name must be the common name of the food, and accurately identify or describe the basic nature of the food or its characterizing properties or ingredients. Ref: CFR 21, Part 101.3
- A **Statement of Responsibility** that includes the business name, street address, city, state, and zip code. Ref: CFR 21, Part 101.5
- The **net quantity of contents** by weight, in U.S. customary measurement and metric measurement. The net quantity of contents must be displayed on the primary label. Ref: CFR 21, Part 101.105. Ref: FLPA, Title 15 Chapter 39, 1453(a)
- A **cottage food declaration**, if applicable. Food products that are manufactured in compliance with Ohio’s Cottage Food Rules, must bear the statement, “This product is home produced.” The statement means that the food product was produced in a private home that is not subject to inspection by a food regulatory authority. Ref: ORC 3715.023
- **Artwork.** To draw consumer attention to the product, artwork is frequently used on food labels. Artwork is permitted as long as it does not misrepresent the product or renders required information difficult to read. Artwork may not be placed between the Ingredient List and the Statement of Responsibility. Ref: 21 CFR, Part 101.2

BACKGROUND

2.1 Local Regulatory Factors

OVERVIEW

Sections 2.3 and 2.4 give a brief overview of the many federal, state and local regulations that must be considered in any venture concerning food growth, processing, distribution, and sales. Regulations are discussed in order to provide context for local food systems planning. These sections do not provide a comprehensive list of regulations nor should they be used for food business planning. Please refer to the sources cited in each heading for more detailed information on federal, state and local regulations.

LAND USE REGULATION REVIEW

In order to assist the City in identifying how and where urban agriculture and green business land uses best interact with the existing built environment, the planning team reviewed existing ordinances and regulations relevant to the location and use of land for urban agriculture in the City of Columbus, Ohio.

Specifically, this plan focuses on those land use regulations that most impact the existence or expansion of urban agriculture uses in Columbus.

Much work has been completed with respect to evaluating regulatory opportunities and barriers to the development of a local “seed-to-plate food cycle” in connection with the 2010 Central Ohio Local Food Assessment and Plan (the “COLFA Plan”). In follow up to the COLFA Plan, McMahon DeGulis undertook “a comprehensive evaluation of the City of Columbus’ Code of Ordinances (the “Columbus Code”) to identify barriers and omissions that would hinder the production, processing, distribution and sale of local-produced foods in Weinland Park.”

While focused on Weinland Park, much of their report is applicable city-wide. With the Plan in place and a global understanding of the regulatory framework for food production generally in the city, the planning team assisted the city in identifying how and where desired agriculture land uses best interact with the existing built environment.

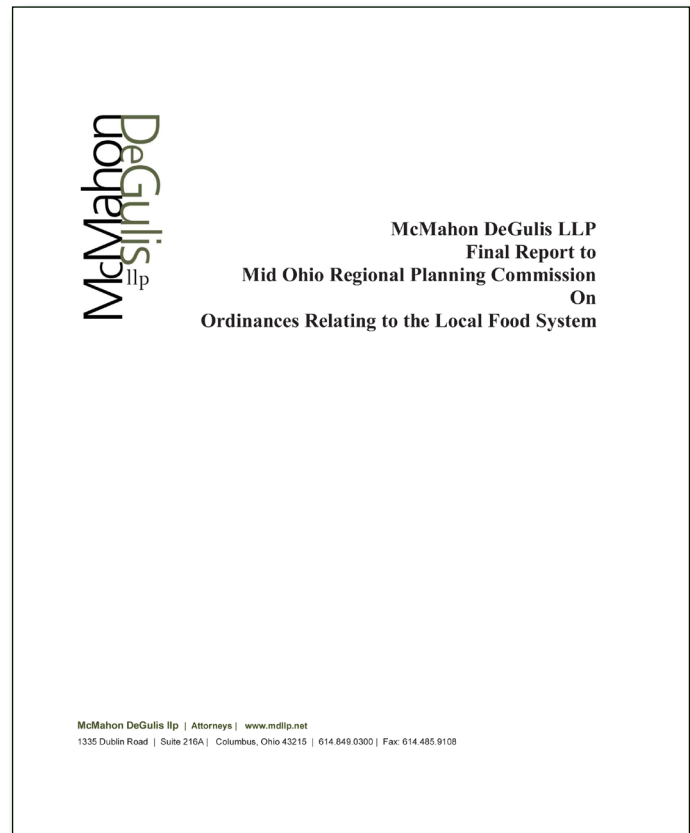


Photo: MKSK

REVIEW AND ANALYSIS

We reviewed and analyzed all provisions of the Columbus Code relevant to agricultural production and processing, farms and farming, private and community gardens, animal husbandry, artisan food production and sales, agricultural runoff, field crops, and greenhouses and nurseries. We also reviewed the Ohio Administrative Code and Ohio Revised Code to identify any provisions that would pre-empt or otherwise impact local law on these matters.

We did not review, and this memorandum does not address, any matters regulated by the Columbus Health Code, or any local, state or federal laws other than those specifically cited herein, or any regulations related to food processing, food safety or sales, other than those directly relevant to the use of land.

ZONING REGULATIONS

The Columbus Code makes little mention of agricultural uses other than to generally permit agricultural uses. These uses, collectively “AG Uses” include farms, field crops, gardens, greenhouses, nurseries and truck gardens. AG Uses are permitted as a matter of right on lots greater than five acres in all of the city’s residential zoning districts. (Note that none of these use terms are defined in the Columbus Code).

AG Uses are permitted by-right in EQ excavation and quarrying districts, but are not permitted in any other commercial or industrial zoning districts in the city without special accessory use approval by the Columbus Department of Building and Zoning Services Director. The East Franklinton Mixed Use District is the only zoning district to specifically provide for urban agriculture uses by right (subject only to issuance of a Certificate of Approval). The term “agriculture” is defined for purposes of this zoning district as “the commercial practice of cultivating, processing, and distributing food, in this case in an urban neighborhood....agriculture can also involve small animal husbandry and beekeeping.”

While the East Franklinton Mixed Use District allows for broad agriculture uses, it does not apply any time or place limitations to these activities.

The only other specific reference to agricultural uses is with respect to the use of the 100 year floodplain in the Hellbranch Run watershed protection overlay. This reference permits AG Uses in the floodplain if permitted in a conservation easement or by other covenants and restrictions.

Other provisions related specifically to the development of property for AG Uses include height and placement limitations on fencing, lighting and parking, which should be considered relative to any specific agriculture project.



Photo: MKSK

BACKGROUND

2.1 Local Regulatory Factors

OTHER REGULATIONS RELEVANT TO LAND USE

The Columbus Code contains other regulations that could impact urban agriculture land uses, such as those related to sales, weeds, use of roadways, stormwater, animals, and waste.

Sales

The Columbus Code regulates community markets, including farm products, on public property, but does not regulate such uses on private property, which is addressed in the zoning code.

Weeds

The Columbus Code provides standards relative to hazardous vegetation — such as grass, weeds, noxious weeds or brush or similar vegetation over 12 inches in height — except where it is reasonably demonstrated to be for agricultural use.

Roadways

The Columbus Code prohibits tire protrusions on vehicles driven on streets and highways unless on farm machinery that will not injure the street.

Stormwater

The Columbus Code prohibits unsanitary matter to flow into watercourses from which the city takes water for its water supply, or that is used in connection or flows into any such watercourse, including from any farm or from animals. Special attention should be paid to the unpublished rules and policies of the stormwater utility department.

Animals

Keeping of animals other than pets, the Columbus Zoning Code primarily focuses on their location. Animals may be kept in stables on these lots as long as it complies with the regulations of the Columbus Health Department.

Compost

The use of property for composting may be considered accessory to a principal agriculture use; however, the Columbus Code allows compost facilities in M or M-1 manufacturing districts by special permit. Compost not processed for ultimate sale will be considered a landfill, which is prohibited in the city.

Waste

Solid waste, including animal waste, from agricultural operations is also regulated by the Columbus Code, which contains standards for the disposal, removal and sanitary containment of solid waste. The Columbus Code expressly prohibits open dumping into a body or stream of water or onto the surface of the ground at site that is not licensed as a solid waste facility.

STATE LAW

Ohio law contains extensive regulations that are general to agriculture and farming. The Ohio Revised Code defines “agriculture” as follows:

As used in any statute except section 303.01 or 519.01 of the Revised Code, “agriculture” includes farming; ranching; aquaculture; algaculture meaning the farming of algae; apiculture and related apicultural activities, production of honey, beeswax, honeycomb, and other related products; horticulture; viticulture, winemaking, and related activities; animal husbandry, including, but not limited to, the care and raising of livestock, equine, and fur-bearing animals; poultry husbandry and the production of poultry and poultry products; dairy production; the production of field crops, tobacco, fruits, vegetables, nursery stock, ornamental shrubs, ornamental trees, flowers, sod, or mushrooms; timber; pasture; any combination of the foregoing; the processing, drying, storage, and marketing of agricultural products when those activities are conducted in conjunction with, but are secondary to, such husbandry or production; and any additions or modifications to the foregoing made by the director of agriculture by rule adopted in accordance with Chapter 119 of the Revised Code.

Because the Columbus Code does not define any of the Ag Uses, the above definition may be instructive and applicable in the City.

LARGER PROPERTIES OR OPERATIONS

Properties exclusively devoted to agriculture larger than 10 acres in area or producing at least \$2,500 annually, qualify for the Current Agricultural Use Value (CAUV) and can be placed in agricultural districts as determined by the county auditor. This impacts the real property taxation of these properties and could have a negative impact on the city's tax revenues from real property taxes. This, of course, depends on the number of 10 acre or larger tracts that can be used in the city, which are likely few in number.

The Ohio Revised Code contains numerous provisions applicable to conventional or larger agriculture operations, including animal and plant health, food safety and inspections, livestock, and commodity sales, among others. These regulations may apply and influence urban agriculture activities as they would any agriculture use in the state. These matters are outside of the scope of this review and analysis, but should be considered for any agriculture operations irrespective of their location in the state.

CONCLUSION

To encourage desired outcomes, the City should adopt a clear, consistent, usable comprehensive set of urban agriculture land use laws that can be applied city-wide in zones identified by the city as being appropriate for these uses.

Based on a review of the Columbus Code, urban agriculture may occur generally in residential zones — subject to certain limitations specifically applicable to Ag Uses and certain other land use limitations that apply to any development in the city. Additional limitations may also be applicable depending on the type and intensity of use.

Because the Columbus Code does not define Ag Uses, it is impossible to know exactly which uses are permitted. Some uses are prohibited under Ohio law. Therefore, it is important that the city clearly identify and define those uses that it intends to permit.

The laws pertaining to urban agriculture uses are disjointed and spread across a number of codes and ordinances. This makes them cumbersome and difficult for a property owner seeking to use land in the city for such uses. While these barriers may be surmountable, they increase the cost of establishing and maintaining urban agriculture in the city, which likely reduces the incentive to establish these uses.

KEY LAND USE QUESTIONS:

1. With what uses is urban agriculture most/least compatible?
2. On what size lots is urban agriculture most/least desirable?
3. Should urban agriculture be defined as a principal use that can be applied city-wide in certain zoning districts?
4. Should urban agriculture be permitted by zoning as a by-right use, or should it require review and approval of a special permit by the city?
5. Are there certain uses that should be included/excluded in the use definition of urban agriculture?
6. Is there a maximum tolerance for the intensity of urban agriculture uses and does it depend on lot area?
7. Are there zones where urban agriculture absolutely should not be located?
8. Is processing and selling on the same lot as cultivation a necessary component/feature of urban agriculture?
9. Are there additional land use considerations not addressed by this memorandum that we need to consider?

BACKGROUND

2.1 Local Regulatory Factors

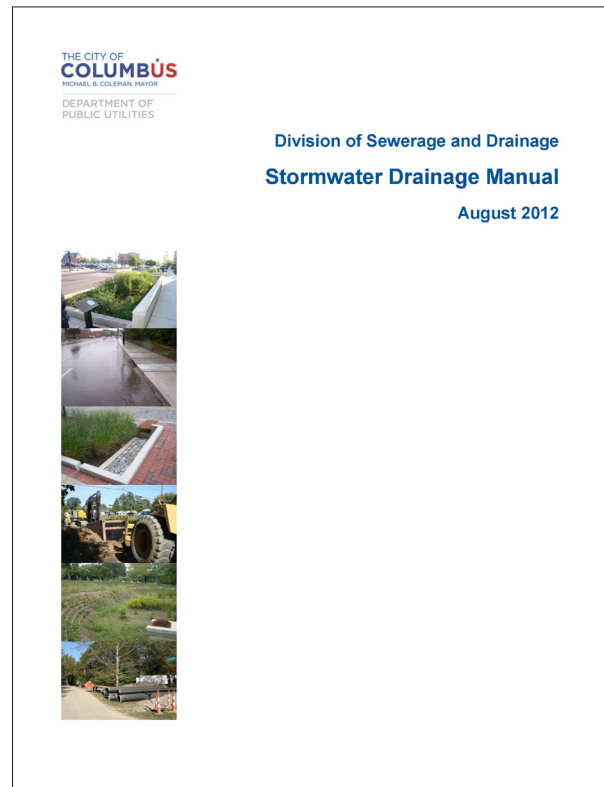
STORMWATER REGULATIONS

The City of Columbus has a Stormwater Management Program that requires all development to control stormwater runoff leaving a site. Stormwater regulations can be broken down into quality and quantity controls. Certain thresholds trigger these controls for any site development.

The Stormwater Drainage Manual is currently in the process of being updated by the Department of Public Utilities.

KEY STORMWATER MANAGEMENT CONSIDERATIONS

- Best Management Practices (BMPs) are required for disturbance of 10,000 sf or 2,000 sf of impermeable area
- A Notice of Intent (NOI) and CC plan are required for projects over 1 acre
- Rainwater harvesting can give BMP credit
- Variance process is available



REGULATORY THRESHOLD	SITE SIZE / DRAINAGE AREA	STORMWATER REQUIREMENT	STORMWATER MANAGEMENT TYPE	TYPES
NO STORMWATER REQUIREMENT	Less than 10,000 sf disturbance with less than 2,000 sf of impervious surface	Exempt	Exempt	
REQUIRES CC PLAN SUBMITTAL AND CONSTRUCTION OF BMP,	5 Acres or smaller	Stormwater quality and quality control	Group 2: media filters	<ul style="list-style-type: none"> > Bioretention facilities > Sand filter
			Group 3: vegetated swales and filter strips	<ul style="list-style-type: none"> > Vegetated swales > Vegetated filter strips > Dry extended detention swales
			Group 4: controls for commercial activity areas	<ul style="list-style-type: none"> > As designed by project team > High risk materials include recycled materials, storage of food items, etc. > Low risk materials include sand, dirt, and soil
	10 Acres or larger	Stormwater quality and quality control	Group 1: stormwater basins	<ul style="list-style-type: none"> > Extended dry detention basin > Extended wet detention basin > Constructed stormwater wetland

BUILDING REGULATIONS

Building projects within the City of Columbus require a plan review and permit, depending on the scope of work. Urban agriculture projects with storage sheds, hoop houses, shipping containers, tall fences, or other structures may need to obtain a plan review and permit to ensure they meet minimum code provisions. If a plan requires approval, a design professional may be required to prepare the plan.

KEY BUILDING REGULATION REQUIREMENTS

- There are no explicit definitions for urban agricultural activities in the City code but it is interpreted permissively
- On-site sales are allowed for producers in residential districts through home occupation designation
- Urban agriculture with no on-site sales is considered a garden and not regulated by the City
- Urban agriculture is currently allowed in commercial and industrial districts through nursery designation

- Depending on the scale of operation, a loading zone application from the fire department may be needed
- Parking requirements are dependant upon the scale of the operation — retail or distribution triggers parking requirements
- Shipping containers may need a special permit unless engineered as a building
- If any parcels require water, a water service plan is needed
- There are no regulations for previous use of land or soil testing

HISTORIC DISTRICT REVIEW

There are multiple historic districts and commission areas that may require a review of the proposed design, prior to obtaining the permits to begin construction. Contact the Planning Division for more information.

REGULATORY THRESHOLD	STRUCTURE SIZE	PERMIT TYPE
NO PLAN REVIEW	Storage sheds less than 169 sf	> Exempt
	Fences shorter than 6 ft	
	Water tanks less than 5,000 gallons	
	Retaining walls shorter than 4 ft	
	Tents/membrane structures less than 200 sf	
REQUIRES PLAN REVIEW AND PERMIT	Fences taller than 6 ft	> Building permit
	Water tanks greater than 5,000 gallons	> Building permit, MEP (mechanical, engineering and plumbing) permit
	Storage sheds greater than 169 sf	> Building permit
	Tents/membrane structure greater than 200 sf	> Building permit
	Plumbing, sewer, heating, ventilation, air conditioning, hydronics, refrigeration and electrical work	> Mep permit
	Building demolition	> Demolition permit
	New building addition, alteration and accessory structure	> Building permit
	Parking lot	
	Masonry walls	

BACKGROUND

2.1 Local Regulatory Factors

DEPARTMENT OF HEALTH

In the scope of all urban agriculture and associated businesses, the City of Columbus Public Health Department is primarily concerned with regulating animal husbandry. While there are no City health code provisions for urban agriculture, local health departments enforce State and Federal regulations. The City acts as a local agent of the EPA to regulate compost and other solid waste facilities.

The City Health Department regulates retail food businesses at the point of sale under the Food Protection Program. This program is responsible for the licensing and inspecting of grocery stores, restaurants, bars, delis, convenience stores, vending machines, food carts, and all food sold at fairs and festivals.

All retail food businesses in the City of Columbus and Worthington are required to have a food service operation or retail food establishment license issued by Columbus Public Health (CPH).

COMPOSTING FACILITIES

There are at least four EPA licensed compost facilities within the City of Columbus.

KEY HEALTH REGULATION REQUIREMENTS

- The Food Safety Modernization Act (FSMA) has regulations related to the growing and picking of food
- The City regulates animal waste, compost, and enforces State and Federal regulations for processing food safety and point of sale



ECONOMIC DEVELOPMENT

The Economic Development Division of Columbus has several resources available to green business and urban agriculture entrepreneurs, such as small business loans and grants and site selection assistance. These mechanisms help startups by acting as a flexible lending alternative to banks.

CURRENTLY AVAILABLE FUNDING OPPORTUNITIES

- Micro loans for startups through ECDI
- Working Capital Loans
- Business Development Loans
- Green Columbus Fund

KEY ECONOMIC DEVELOPMENT RESOURCES

- Economic development programs include performance incentives, property tax abatements, and business loans
- Finance Fund is a revolving loan fund partner with Healthy Food For Ohio Funds for grocery chains, individual grocery stores, neighborhood food stores, co-ops, and nontraditional food projects such as farmers markets and Food Hubs in limited access areas
- The Small Business Concierge and Small Business Builder (columbus.gov/smallbusiness/) provides a road map for startups with business and marketing plans, employees, financing, and accountability assistance
- Enterprise zones and Community Reinvestment areas can receive tax exemptions for eligible new investments
- The Green Columbus Fund provides grants to encourage the redevelopment of brownfield sites and green buildings
- Columbus2020 is a regional growth plan for the Columbus area — Logistics and Food and Beverage Manufacturing are focus industries

THE CITY OF COLUMBUS SMALL BUSINESS BUILDER

FIND US
FOLLOW US



CONTACT

Ryan Schick
Small Business Concierge
(614) 645-1984
[Email](#)

Opening a small business requires careful consideration of your market, a firm business plan, and the discipline to protect what is most important to you at this time—your financial capital. Through the office of the Small Business Concierge and the Small Business Builder, you will be connected with the resources necessary to help you accomplish your goals.

QUICK LINKS

[Home](#)
[About Your Concierge](#)
[Restaurants](#)
[Day Care](#)
[Salons and Barber Shops](#)

RESOURCES TO BUILD YOUR BUSINESS

Behind every good business is a solid business plan. Columbus is nationally recognized for its wide variety of free business resources that will assist you in crafting a sound business and marketing plan, finding the right employees, obtaining financing, and how to properly account for your business. - [learn more](#)

YOUR SPECIFIC BUSINESS ROADMAP

Starting your own business in Columbus just became a lot easier. Here is the heart and soul of the Small Business Builder. Below are links to various industries and the steps necessary at the city, county, state, and federal level for turning your business idea into reality:

- [Restaurant](#)
- [Day Care Center](#)
- [Salon/Barber Shop](#)

Please check back as we will be adding these and other business types to the Small Business Builder:

- [Food Truck/Cart & Catering](#)

COLUMBUS 2020

BACKGROUND

2.1 Local Regulatory Factors

LAND REDEVELOPMENT

The Land Redevelopment Division within the Department of Development inventories and manages Land Bank properties throughout the City.

The Property Search mapping tool provides a public listing of vacant lots and structures with pictures, price, and notes about condition.

The Land Redevelopment Division currently has a Community Garden program that allows the use of vacant lots as community gardens. Non-profits and community groups are eligible participants.

Any property without a structure is eligible to become a community garden. To obtain a license to convert a Land Bank Property to a community garden an application must be completed, along with a site plan, rules for the garden, and a liability waiver.

LAND BANK LOTS

Over 60 land bank lots are currently being used as community gardens. Contact the Land Redevelopment Division for more information.

KEY LAND REDEVELOPMENT CONSIDERATIONS

- The maximum length of time for a License Agreement is one year, which can be renewed annually
- Gardens on Land Bank property are eligible to receive a water cistern from the city
- The County Land Bank is used as a fiscal agent to buy cisterns
- Gardens on Land Bank property can receive \$250 vouchers through Lowe's
- Grants for non-profit community gardens are available through the Columbus Foundation, ScottsMiracle-Gro Community Garden Academy

FIGURE 2.1.01: GARDENS ON LAND BANK LOTS

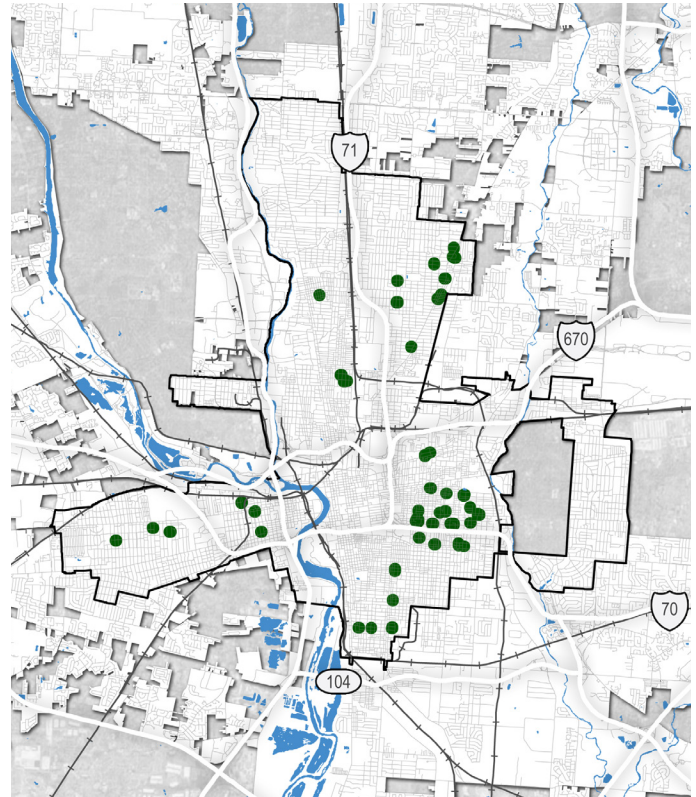


Photo: Columbus Land Bank



Photo: Google Street View

RECREATION AND PARKS

The Columbus Recreation and Parks Department provides recreational park spaces and programming to the residents of Columbus. The department offers an Educational Gardens program in partnership with Local Matters. Gardens at eight community centers function like garden clubs rather than traditional community gardens, with Local Matters providing educational programming related to food production.

Also affiliated with recreation and parks is Food Matters — another program offered by Local Matters. Food Matters takes place at Educational Garden recreation centers. The eight week program works with garden classes to build and maintain a working garden at the center.

The Recreation and Parks Department also has Free Meals programs that offers healthy meals at community centers during the summer and during the school year for students after school. The Strawberry Food Truck provides meals at parks as part of the summer lunch program to kids throughout the city.

RECREATION AND PARKS OPPORTUNITIES

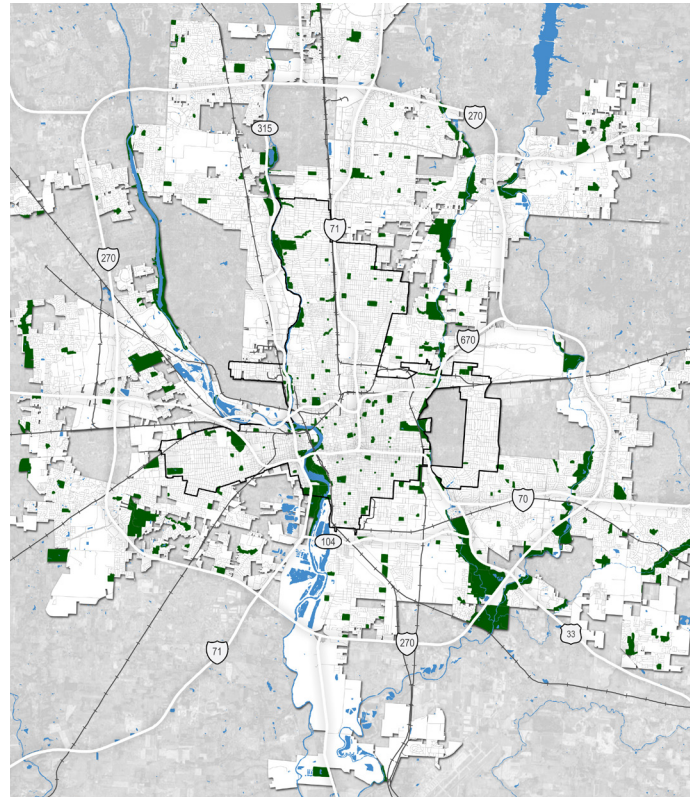
8 recreation centers offer educational garden programs:

- Blackburn Community Center
- Dodge Community Center
- Feddersen Community Center
- Howard Community Center
- Thompson Community Center
- Whetstone Community Center
- William H. Adams Community Center
- Woodward Park Community Center

KEY POINTS

- The Recreation and Parks Department provides wood chips to community gardens on Land Bank properties.

FIGURE 2.1.02: CITY OWNED PARKS



BACKGROUND

2.2 Macroeconomic Factors

DEMAND FOR URBAN AGRICULTURE IN CURRENT MACROECONOMIC TRENDS

U.S. population growth since the start of the 20th Century has been in urban areas while the population in rural areas has remained stable. Further, the share of Americans living in cities continues to increase. As of 2010, approximately 80 percent of Americans live in urban areas up from around 40 percent in 1900.

The transformation of where and how Americans live has been influenced by countless factors, including access to transportation, quality of life, and evolving cultural norms. But most importantly, the mass urbanization of America has been fueled by increasing access to economic opportunities in cities.

In recent years, there has been a growing consciousness of healthy eating in urban areas, with associated focus on behaviors, and lifestyles, as well as a cultural affinity to rural or “traditional” life. These phenomena have influenced a growing movement toward urban agriculture.

With increasing economic opportunity and variety in urban areas, more and more individuals are not only choosing what they eat, but also they have a greater understanding of its origin and how it was produced. Urban agriculture not only offers healthy food options,

but in many cases, access to produce that would be otherwise unavailable based on climate or environmental conditions, or gaps in food suppliers or retailers.

From a consumer-based economic perspective, urban agriculture is satisfying some level of this increasing demand via private gardens, community gardens, CSAs, or larger-scale urban farms. However, urban agriculture can have a much broader economic impact as it relates to economic and community development.

GENERAL ECONOMIC BENEFITS OF URBAN AGRICULTURE

The positive economic impacts of urban agriculture can be understood within the framework of economic development, neighborhood development, household/consumer demand, environmental factors.

ECONOMIC DEVELOPMENT BENEFITS

Workforce development

Urban farming requires diverse skills and knowledge in addition to farming, such as carpentry, construction, food preparation, business development, and animal husbandry. Urban agriculture enterprises have the potential to provide job training and education for employees, volunteers, and community members, thus increasing skills, knowledge, and job experience in the community.

Job growth

Urban farms create jobs and new sources of income for residents. Urban agriculture supports both direct employment (on-farm jobs) as well as indirect employment (increasing demand for supplies and other inputs). Beyond urban agriculture, there are also employment opportunities in the broader food production industries, including food manufacturing, distribution, and wholesale trade.

Multiplier effects

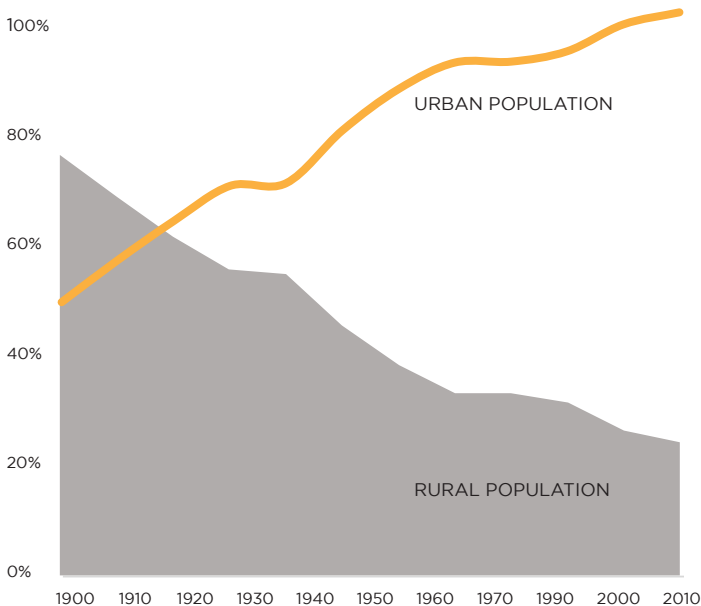
Money spent on locally-produced fruits and vegetables from independent businesses creates a multiplier effect, leading to a greater retention of wealth within the community. The more local the supply chain, the greater the benefit to the community.

Innovation

The challenges of urban farming lead to innovation in production methods to make farming more efficient and sustainable. Urban farmers often have to think creatively to maximize production and profit, producing new techniques and business models and increasing our understanding of what is possible to achieve in an urban context.

FIGURE 2.2.01: PERCENTAGE OF URBAN VS. RURAL U.S. POPULATION, 1900-2010

Source: U.S. Census



NEIGHBORHOOD DEVELOPMENT BENEFITS

Reuse of vacant/underutilized properties

Many urban cores grapple with an overabundance of vacant land, which has a negative effect on nearby residents and creates an atmosphere of abandonment. Community gardens and urban farms, on the other hand, provide a productive use for vacant and underutilized land and communicate investment in the community.

Community revitalization:

An urban farm that replaces vacant land or buildings is more aesthetically pleasing and creates activity that makes communities feel safer. Community gardens and urban farms also provide a gathering place where community members can come together to work toward a common goal. A Chicago survey found the top reason given for the importance of community gardens was their ability to add beauty to the community (http://www.gardeningmatters.org/sites/default/files/Multiple%20Benefits_2012.pdf).

Property values

Proximity to greenspace raises property values. A study of community gardens in New York found that residential properties near community gardens had higher sales prices than properties at greater distances. Increased sales prices led to increased property taxes for the city, with the greatest positive effects in the poorest neighborhoods (http://furmancenter.org/files/publications/The_Effect_of_Community_Gardens.pdf). A study in Milwaukee showed a similar effect (http://www.gardeningmatters.org/sites/default/files/Multiple%20Benefits_2012.pdf).

Youth education

Many community gardens and urban farms take their commitment to the community seriously, offering a wide range of educational programming for youth and student groups. From field trips to summer programs, urban farms offer educational opportunities for young people who want to learn more about where food comes from.

HOUSEHOLD/CONSUMER BENEFITS

Economic savings on food

Whether grown at home or purchased at a local farmer's market or CSA, urban agriculture can provide economic savings on household food expenditures. However, much of the cost-savings from producer to consumer depends on climate, resources, scale of farming operations, and type of produce.

Healthy food access

Access to health food can have a profound impact on health outcomes and behaviors. Community gardeners and their families eat more nutrient-rich diets as a result of having more access to fruits and vegetables (http://www.gardeningmatters.org/sites/default/files/Multiple%20Benefits_2012.pdf).

Food security

Many cities have neighborhoods where access to fresh food can be a challenge, especially for transit-dependent residents. Urban agriculture can provide improved access to healthy and quality food in communities that are underserved due to economic or other market barriers.

ENVIRONMENTAL BENEFITS

Urban agriculture can have significant positive effects on various dimensions of the environment. Additional green space with growing plants can sequester carbon, recharge groundwater, reduce the urban heat island effect, and reduce stormwater volumes.

BACKGROUND

2.2 Macroeconomic Factors

AVAILABILITY OF VACANT LAND

A key component to understanding the proliferation of urban agricultural practices in cities such as Detroit, Cleveland, and Baltimore is the availability of vacant land. A thriving local economy with strong demand for housing, jobs, retail, and other amenities not only increases the value of land in the urban core, but also the feasibility for new real estate development. Conversely, cities and/or neighborhoods dealing with disinvestment and population decline have market constraints for new real estate development, and in many cases, new real estate development can only be feasible through subsidy. Many communities facing these circumstances have turned to urban agriculture as a productive use of vacant land or underutilized properties. In some cases, urban agriculture is considered a temporary use until market conditions improve over the long term.

In the case of Columbus, because of annexation policies and activity since the 1950s, the city has expanded outward and suburbanized. While the socio-economic conditions in Columbus are not as challenging as parts of Detroit, Cleveland, or Baltimore, portions of the central City are clearly distressed. The conditions observed within Columbus' 1950 boundary lend insight to the possibility for urban farming in the urban core in terms of the availability of vacant land and real estate.

Figure 2.5.06 provides a visual comparison of socio-economic conditions for several of these cities. Areas within the 1950s boundary of Columbus show similar patterns to rustbelt cities like Detroit and Cleveland for vacancy rates and poverty.

FIGURE 2.2.02: POPULATION CHANGE IN REGIONAL CITIES, 2000-2015 Source: ESRI

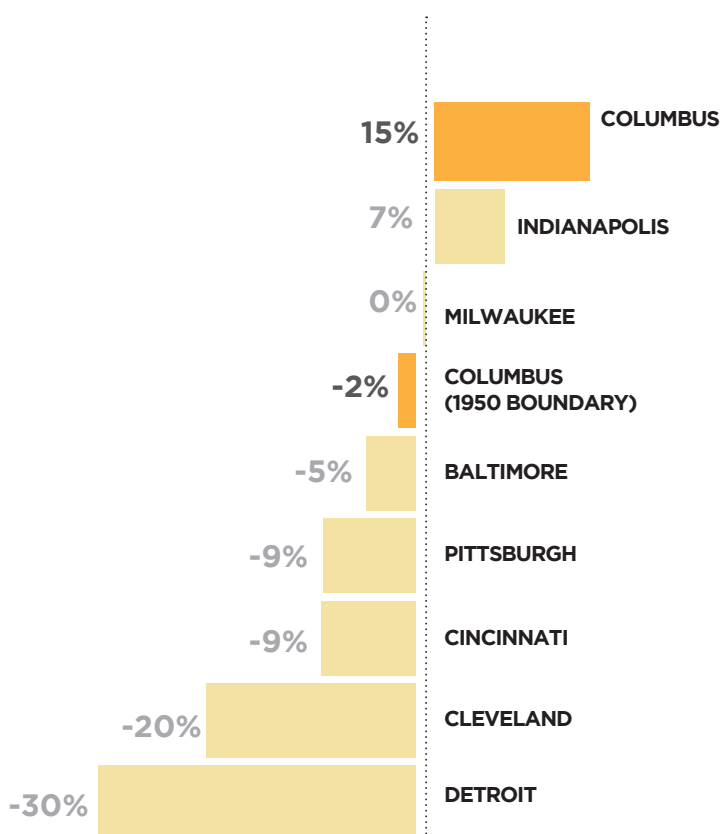


FIGURE 2.2.03: RESIDENTIAL VACANCY IN REGIONAL CITIES, 2015 Source: ESRI

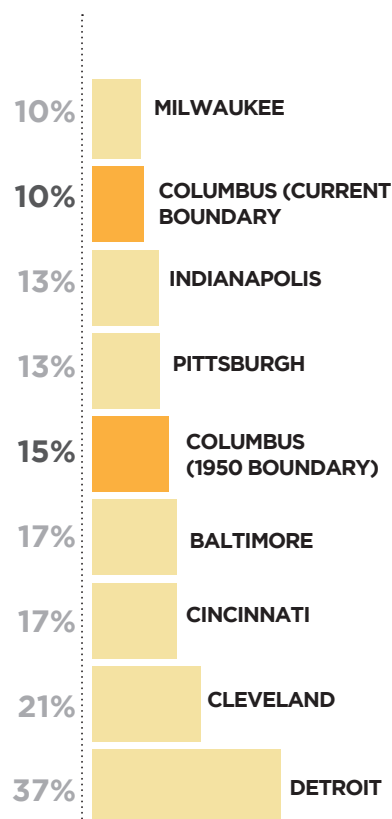
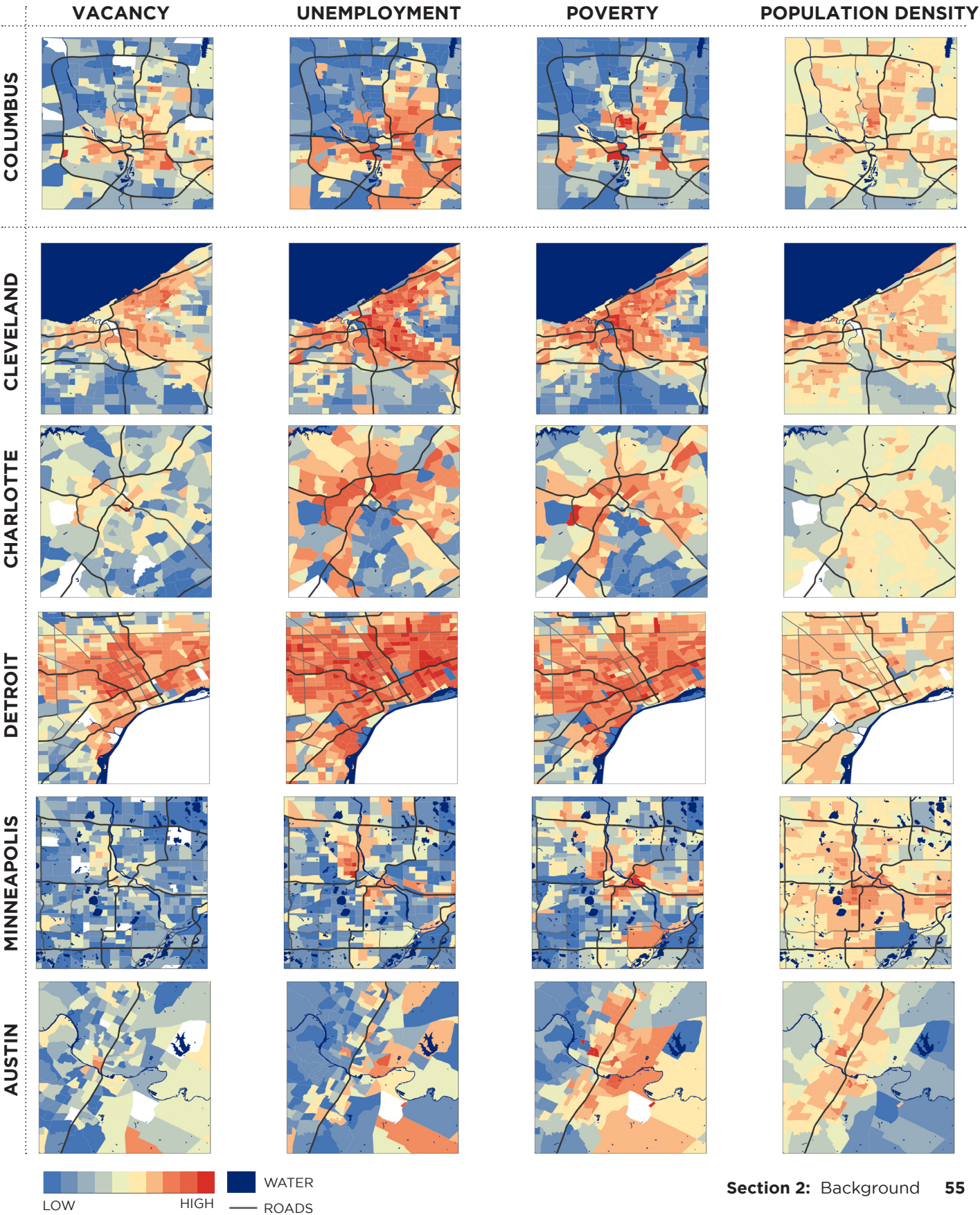


FIGURE 2.2.04: COMPARISON OF CITY PATTERNS, 2015 Source: US Census Bureau 2010-2014 American Community Survey 5-Year Estimates



BACKGROUND

2.2 Macroeconomic Factors

CHALLENGES WITH BENCHMARKING

Limited economic data and quantitative research presents the biggest challenge to assessing urban agriculture from a macroeconomic perspective. Though there are countless case studies of innovative and diverse urban farming practices across the United States, there is not an established methodology to assess the proliferation or effectiveness of urban agriculture as an industry sector in a given city or region. For example, this limits our ability to rank or evaluate aggregate urban agricultural practices or identifying the “most successful” or “ideal” city or region.

The primary sources of publicly available local and regional economic data are from the Bureau of Labor Statistics (BLS) and Bureau of Economic Analysis (BEA) and both do not offer any urban agriculture-specific data sets. BLS’s occupational data, which includes data on Farming, Fishing, and Forestry Occupations, is only based on the regional level (MSA). By definition, this data would include large-scale agricultural areas in the region with no differentiation between traditional and urban farming practices. BEA provides wage, employment, and productivity (GDP) data by industry sector at the county and MSA level, but again, there is no differentiation of traditional and urban farming practices.

ESRI Business Analyst provides business and employment data at the city level categorized by North American Industry Classification System (NAICS) codes, which can offer some benchmarking analysis possibilities; although defining “urban agriculture” requires aggregating a number of NAICS code.

For example, urban agriculture could generally be defined by NAICS codes associated with agricultural practices (Two-Digit NAICS 11) as well as Fresh Fruit and Vegetable Merchant Wholesalers (424480) and Fruit and Vegetable Markets (445230).

Benchmarking Employment

When benchmarking employment in these industry sectors between Columbus and other major markets in the Midwest (generally within 200 miles), the very low employment totals illustrate the challenges of trying to “rank” urban agricultural activity in other cities.

Beyond the basic production, sale, and distribution of fruits and vegetables, there are additional employers within an urban area’s food system that should also be considered. For example, companies that prepare and package fresh fruits and vegetables in many ways fall within the realm of urban agriculture, since these types of activities can support healthy food access. On the other hand, “food manufacturing” as an industry is quite nuanced and can include such industries as retail bakeries, meat processing, soft drink manufacturing, and fat and oils refining and blending. Therefore, having higher employment in food manufacturing is probably more associated with having an economy historically tied to manufacturing — like Cleveland and Pittsburgh — than it is associated with having an economy strong in urban agriculture.

Similar to employment in sectors related to the production and sale of fresh fruits and vegetables, employment in food manufacturing is also a relatively low proportion of the total workforce in these cities.

FIGURE 2.2.05: EMPLOYMENT IN AGRICULTURE, FRUIT AND VEGETABLE WHOLESALE, AND FRUIT AND VEGETABLE MARKET INDUSTRIES & FOOD MANUFACTURING BY REGIONAL CITY

	COLUMBUS	CINCINNATI	CLEVELAND	INDIANAPOLIS	LOUISVILLE	PITTSBURGH
Employment in Ag. + Fruit & Veg. Wholesale + Fruit and Veg. Markets	544	211	731	1,129	134	261
Total Employment	736,561	338,812	369,226	559,792	244,172	358,645
% Employment in Urban Agriculture-related businesses	0.07%	0.06%	0.20%	0.20%	0.05%	0.07%
	COLUMBUS	CINCINNATI	CLEVELAND	INDIANAPOLIS	LOUISVILLE	PITTSBURGH
Employment in Food Manufacturing*	1,171	1,205	2,570	1,689	1,459	2,484
Total Employment	736,561	338,812	369,226	559,792	244,172	358,645
% Employment in Food Manufacturing	0.16%	0.36%	0.70%	0.30%	0.60%	0.69%

* Excludes breweries, wineries, distilleries, and coffee/tea manufacturers

Source: ESRI

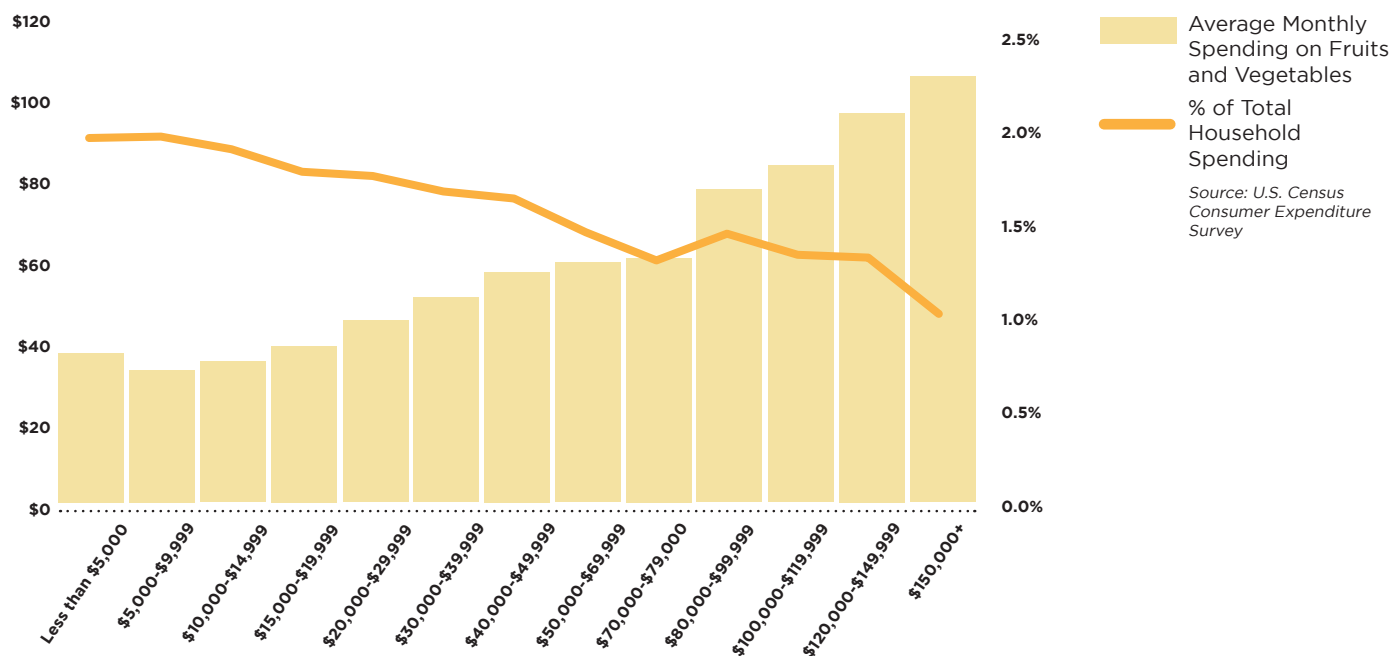
CONSUMER DEMAND

The broader market for urban agriculture is generally constrained by household food budgets and competition from conventional food retailers (grocery stores, super markets, etc.). Though urban agriculture on the personal or community scale can, in some cases, provide more affordable food options, urban agriculture (at a larger scale) is generally more marketable to higher income households. These households exhibit greater preferences for organic produce and flexibility of monthly food budgets. For example, households earning less than \$20,000 annually typically spend around \$40, on average, on fresh fruits and vegetables, whereas households earning more than \$100,000 annually spend twice that amount.

Given the costs of food production, many urban farming operations target higher income brackets to balance costs through sales at farmer's markets or sourcing to upscale restaurants.

At the same time, higher income households eventually maximize their total consumption (a household generally can only consume a finite amount of fresh food each month) and producers would be more profitable by expanding their total demand pool to include all income levels. For example, two households earning \$45,000 annually spend more on fresh fruits and vegetables combined than a single household earning more than \$150,000.

FIGURE 2.2.06: AVERAGE MONTHLY HOUSEHOLD SPENDING ON FRUITS AND VEGETABLES BY INCOME BRACKET



LOCAL FOOD DEMAND

Food systems are extremely complex as they relate to production, distribution, and consumption. There are limited resources available to identify specific food demand and needs within a community, but the U.S. Food Market Estimator from the Leopold Center for Sustainable Agriculture at Iowa State University is the best available tool for estimating the aggregate demand for food at the county, state, and national level. Across six food groups (dairy, fats and sugars, fruits, grains, meats and nuts, and vegetables) there are sub-group and product categories and the total annual demand per pound can be calculated. This data can offer some insights as to the amount of land would be needed to supply the City of Columbus with fresh fruits and vegetables.

FIGURE 2.2.07: LOCAL FOOD DEMAND

	POUNDS PER CAPITA	TOTAL DEMAND IN CO-LUMBUS
FRESH VEGETABLES	189	156 MIL
FRESH FRUIT	68	56 MIL
TOTAL	257	212 MIL

BACKGROUND

2.3 Microeconomic Factors

INTRODUCTION

Urban agriculture and food-related green businesses do not fit neatly into a traditional economic-development toolkit. Like conventional rural farms, urban farms are not significant job creators. Even food processing and distribution businesses are not at the large scale and job numbers that communities desire. But those kinds of businesses can generate 75 jobs here, 135 there, 20 across the street, and 50 around the corner. And Columbus is well-positioned to be a regional leader in the growing local-food industry.



Columbus City Schools is seeking a \$100,000 USDA Farm to School grant to buy more local food for the meals it serves and to create new jobs to prepare it.



THE OHIO STATE UNIVERSITY

The Ohio State University, which spends an estimated \$39 million per year on food, has set a goal of finding local sources for a minimum of 40 percent of the food it buys by 2025.

The Ohio State University also plans to repurpose its Waterman Farm at Kenny Road and Lane Avenue as a national research center for urban agriculture.



Denison University and **Kenyon College** already spend about 45 percent of their food-service dollars locally, and other colleges and institutions are increasingly interested in buying local.



City of Columbus and **Franklin County**, along with the **Mid-Ohio Regional Planning Commission**, have years of local-food planning experience – with an approach that is more comprehensive, systemic and business-oriented than efforts in many other places.



Scotts Miracle-Gro – a subsidiary of which is entering the market for grow-lights and other indoor agriculture initiatives – is a major supporter of Growing to Green, the nationally and internationally known urban-agriculture efforts of the Franklin Park Conservatory.

FOOD INDUSTRY ANALYSIS

Local food is nothing new in Central Ohio. In 1960, the immediate Columbus area had eight dairies, 10 meatpackers and 25 produce distributors – 16 of them based around the old Central Market. Much of our food came from the farms and greenhouses in the region. Just as a variety of economic forces steered us away from that model, new factors – food quality, the environment, and the local economy – are reviving the demand for local food.

The 12 counties of central Ohio spend more than \$8 billion per year on food, according to USDA data. But estimates suggest that less than 5 percent was grown and processed in Ohio. How many of those food dollars can we keep in Columbus and Franklin County? It depends on how well we develop our “food infrastructure” businesses. The region has lost much of its processing capacity, and the distribution system is geared to the national model. Fortunately, such remaining local distributors as Sanfillipo, DNO and others have developed market niches over the years, and now they are at the forefront of local-food efforts.

When OSU and other institutions seek local food, they cannot use truckloads of beans or potatoes direct from the farm. They need potatoes to be washed – and potentially peeled, cut and frozen, the green beans need to be trimmed and packaged. The adjacent featured businesses have grown under this climate.

CONCLUSIONS

The local-food industry in Columbus is poised for growth. Consumers are more interested and aware of the benefits of locally produced food. Institutions are starting to demand it. Farmers are interested in diversifying their production when the marketing channels develop. Those marketing channels support the supply chain – the local-food processing and distribution infrastructure. Supporting startups and helping existing businesses grow and expand will be the key to the future of local food. Often these are small businesses looking for expansion sites, regulatory assistance, or help with financing – as opposed to tax breaks or subsidies.



DNO Produce is buying expensive equipment to slice and dice its produce – tripling its staff to 135 in just six years.



A startup in Newark, the **Canal Market District** Innovation Hub, envisions eight to 10 employees next year to process foods for hospitals, colleges, and other food businesses.



Krazy Kraut, a Columbus startup from ECDI's Food Fort, needs to expand to a facility of its own as the number of its supermarket clients triples to 220 in three states and its payroll triples to over 15 workers.

BACKGROUND

2.3 Microeconomic Factors

DEMAND ANALYSIS

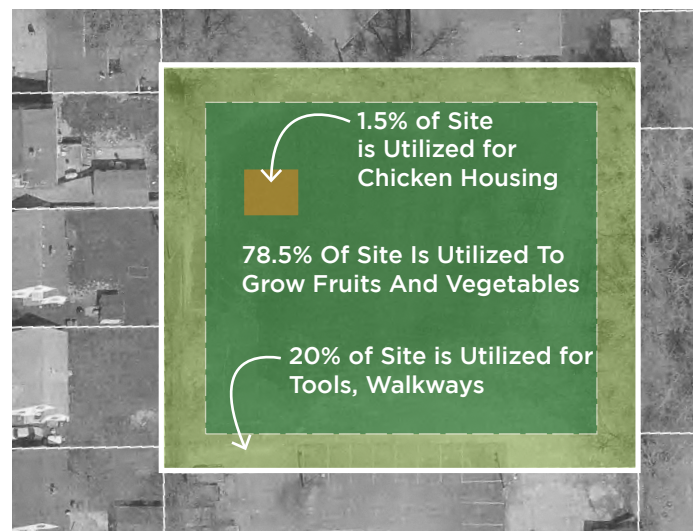
In 2011, Shrananbir S. Grewal and Parwinder S. Grewal of the Center for Urban Environment and Economic Development of The Ohio State University published “Can cities become self-reliant in food?”. The article tests the concept that the City of Cleveland could eventually become completely self-reliant in supplying its demand for produce, poultry, shell eggs, and honey.



Reuse Of Vacant Lots for Agriculture

The vacant lot reuse scenario assumes that 80% of every vacant lot is utilized for farming practices. The remaining 20% of the site includes any necessary site setbacks, walkways, storage, and other ancillary uses. Of the remaining 80%, 1.5% of the site would be utilized for chicken housing. The remaining 78.5% of the site would be utilized for farming of fresh fruits and vegetables.

FIGURE 2.3.01: VACANT LOT REUSE EXAMPLE



RESULTS FROM CLEVELAND STUDY

Based on various scenarios of production methods, 46-100% of fresh produce demand can be met within the Cleveland city limits. Hence, with proper planning and the correct mix of urban agricultural techniques, Cleveland could eventually become completely self-reliant in its food supply. This would lead to \$28M to \$115M in economic activity being retained within the City.

Additionally, several tangential benefits would result from locally sourced food. First, localities of various scales could obtain basic necessities within their own physical footprint. Second, this hyperlocal approach enables the potential for economic autonomy, food security, and increased resilience to broad economic trends. Third, with minimized transportation and mechanized production, the overall carbon footprint of food supply would be significantly reduced. Last, this approach enables a unique food culture based on locally available crops and trends.

ASSUMPTIONS

Estimating Demand

The demand for fresh fruits and vegetables is based on accepted metrics from the United States Department of Agriculture (USDA) which help to forecast demand in various geographic markets. These metrics provide for demand for both *fresh* fruits and vegetables and *total* fruits and vegetables.

Farming Methods and Yield Intensities

The study assumes a mix of urban agriculture production types ranging from conventional urban gardening with relatively low yields/acre to hydroponic gardens with very high yields/acre. Various hypothetical scenarios were developed to demonstrate the growth potential of various mixes of agricultural practices.

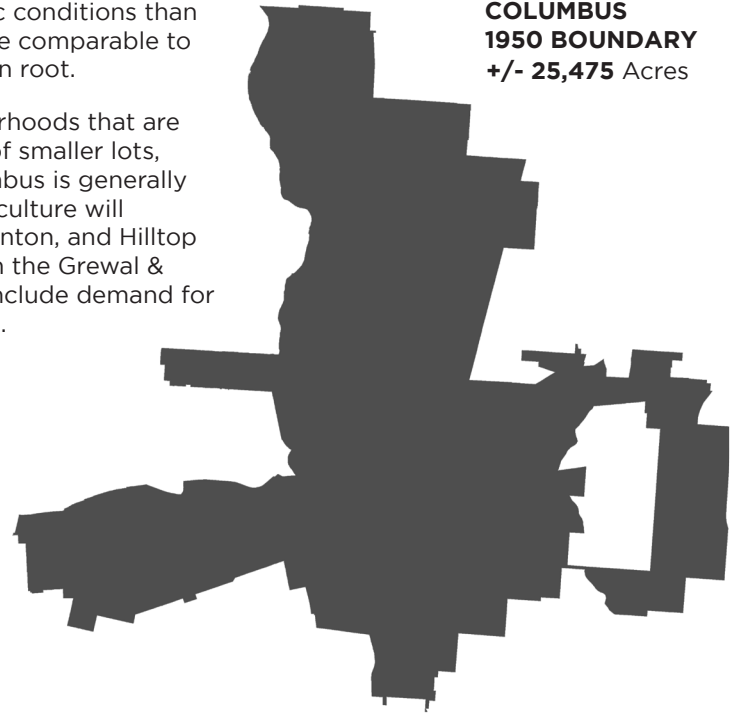
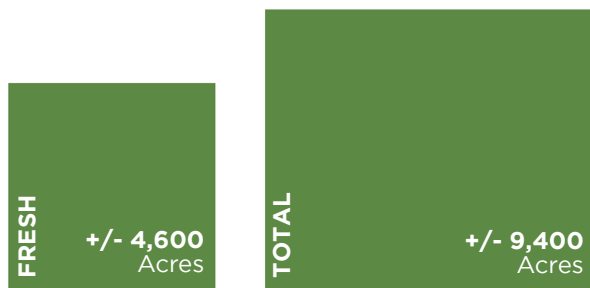
ESTIMATING URBAN LAND REQUIRED TO MEET COLUMBUS DEMAND FOR PRODUCE

Demand and Supply estimates were developed for Columbus utilizing the same methodology as the Grewal & Grewal study. Columbus as a whole generally has different geographic, social, and economic conditions than Cleveland. However, some Columbus neighborhoods are comparable to the areas of Cleveland where urban agriculture has taken root.

The 1950's era Columbus city limits include the neighborhoods that are generally considered to be "urban" and are comprised of smaller lots, a gridded street network, and alleys. This part of Columbus is generally where urban farms are currently located and urban agriculture will continue to grow. Additionally, the Linden, West Franklinton, and Hilltop neighborhoods are key urban neighborhoods. Based on the Grewal & Grewal methodology, household demand was defined to include demand for fresh produce as well as produce needed for processing.

**COLUMBUS
1950 BOUNDARY**
+/- 25,475 Acres

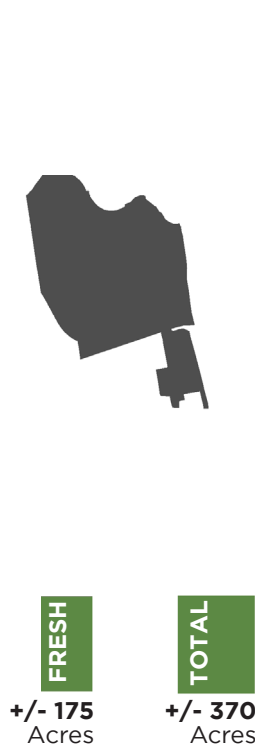
FIGURE 2.3.02: AVERAGE ANNUAL HOUSEHOLD DEMAND FOR FRESH PRODUCE



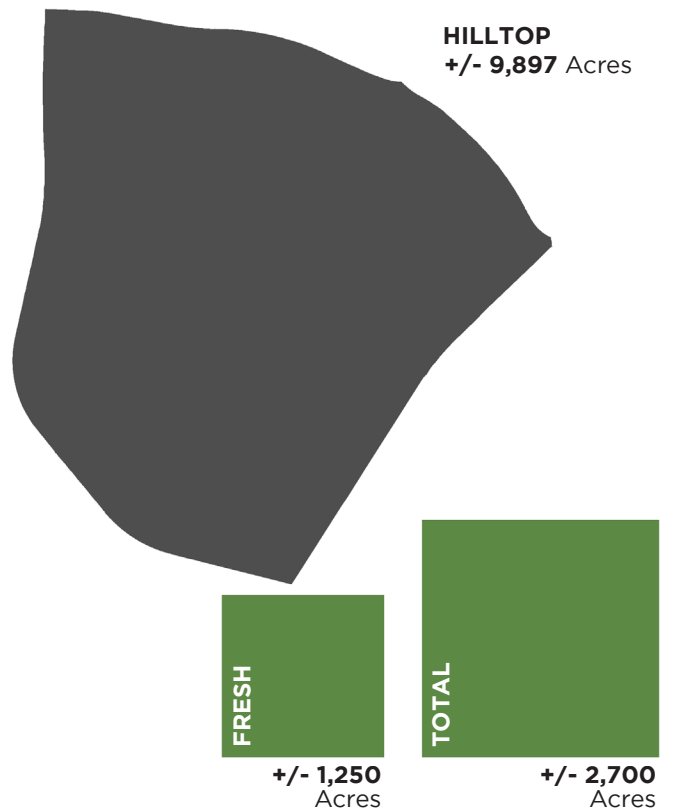
LINDEN
+/- 4,162 Acres



WEST FRANKLINTON
+/- 1,138 Acres



HILLTOP
+/- 9,897 Acres



BACKGROUND

2.3 Microeconomic Factors

ECONOMIC POTENTIAL ANALYSIS

This analysis represents the economic impacts of urban farming on Franklin County. The economic potential and economic impacts on the local community are based on three methods of production for fresh produce: 1) Conventional Urban Gardening; 2) Intensive Urban Gardening; and, 3) Hydroponics.

This text corresponds to figure 5.2.01 on the facing page. In the following explanation of the economic potential analysis, findings for conventional urban gardening are carried throughout the discussion as an example of how to read figure 5.2.01.

Overview

Direct spending in a local economy generates income, supports jobs, and in most cases, creates tax revenue. Direct spending creates an economic impact. Direct spending becomes indirect spending — income for other businesses and employees who use that money a “second time” to pay for goods and services. This cycle creates an indirect economic impact — also known as the multiplier or ripple effect — as that money continues to be re-spent through the economy.

Methodology

Economic impacts are measured by the commonly accepted methodology of using multiplier coefficients from the U.S. Department of Commerce’s Regional Input-Output Multiplier System (RIMS-II). There are multipliers available for a wide range of industry sectors. The total spending in a given geographic area is applied to the multipliers. The smallest geography provided by RIMS-II is at the county level. The resulting output gives measures for 1) total economic output; 2) earnings supported; and, 3) jobs supported.

There is no “urban agriculture” RIMS-II sector. Here, the multipliers for vegetable and melon farming were applied to approximate an urban agriculture multiplier. Of the given choices, the vegetable and melon farming multipliers best represent urban agricultural production.

Potential Supply Growth Within the Locality

Utilizing data from the Franklin County Auditor, total vacant land area was derived using the Franklin County land use map and real property land use codes. All vacant commercial, industrial or residential land was assumed to be available for urban agriculture use.

According to assumptions from the Grewal & Grewal study — which provides standards of general productivity per acre for each method of production — within the 1950 boundary of Columbus:

- Conventional urban gardening could accommodate just over seven percent of total demand.

Dollars Retained

By satisfying food demand with local production, household spending that would otherwise leave the city or neighborhood (leakage), can then be spent locally. This is referred to as “dollars retained.” Estimated dollars retained is measured as a reduction in annual economic leakage. Within the 1950 boundary of Columbus:

- Conventional urban gardening could retain approximately \$4.3 million.

Total Economic Output

Total Economic Output is a measure of total economic activity as dollars are spent and re-spent. Economic impact is not necessarily specific to neighborhoods and is measured at the county level. This measure is similar to the state’s or nation’s gross domestic product (GDP). Within the 1950 boundary of Columbus:

- \$4.3 million in dollars retained through conventional urban gardening would result in a total economic impact of \$6.2 million in Franklin County.

Earnings Supported

Earnings Supported represents how much added income accrues for households living in Franklin County from urban agricultural practices and the spending on produce. Earnings are not necessarily specific to neighborhoods and are measured at the county level. Figures are preliminary estimates based on industry averages.

- Of the \$6.2 million in total economic output from conventional urban gardening, \$1.3 million are direct and indirect earnings for Franklin County residents.

Jobs Supported

Jobs supported represents the total number of direct and indirect jobs supported in Franklin County as a result of each of the three urban agricultural practices. Given that the smallest available geography for RIMS-II multipliers are at the county level, these jobs are not necessarily retained within these neighborhood boundaries. It may be assumed that the majority of these jobs would be local given the capture of production and spending. Estimated jobs supported represents full-time equivalent (FTE) jobs based on a 40-hour work week. Within the 1950 boundary of Columbus:

- Conventional urban gardening would support 40 full time jobs.

FIGURE 2.3.03: ECONOMIC POTENTIAL OF URBAN AGRICULTURE

GROWING METHOD	COLUMBUS (1950)	LINDEN	WEST FRANKLINTON	HILLTOP
POTENTIAL SUPPLY GROWN WITHIN THE LOCALITY				
CONVENTIONAL URBAN GARDENING	+/- 7.2%	+/- 8.4%	+/- 11.6%	+/- 13.0%
INTENSIVE URBAN GARDENING	+/- 13.5%	+/- 15.6%	+/- 21.5%	+/- 24.4%
HYDROPONIC	+/- 15.8%	+/- 18.2%	+/- 25.2%	+/- 28.5%
DOLLARS RETAINED				
CONVENTIONAL URBAN GARDENING	+/- \$4.3 M	+/- \$0.8 M	+/- \$0.2 M	+/- \$1.9 M
INTENSIVE URBAN GARDENING	+/- \$8.0 M	+/- \$1.5 M	+/- \$0.4 M	+/- \$3.5 M
HYDROPONIC	+/- \$9.4 M	+/- \$1.7 M	+/- \$0.5 M	+/- \$4.0 M
TOTAL ECONOMIC IMPACT				
CONVENTIONAL URBAN GARDENING	+/- \$6.2 M	+/- \$1.1 M	+/- \$0.3 M	+/- \$2.7 M
INTENSIVE URBAN GARDENING	+/- \$11.5 M	+/- \$2.1 M	+/- \$0.6 M	+/- \$5.0 M
HYDROPONIC	+/- \$13.4 M	+/- \$2.5 M	+/- \$0.8 M	+/- \$5.8 M
ESTIMATED EARNINGS SUPPORTED				
CONVENTIONAL URBAN GARDENING	+/- \$1.3 M	+/- \$0.2 M	+/- \$0.1 M	+/- \$0.6 M
INTENSIVE URBAN GARDENING	+/- \$2.4 M	+/- \$0.4 M	+/- \$0.1 M	+/- \$1.0 M
HYDROPONIC	+/- \$2.8 M	+/- \$0.5 M	+/- \$0.2 M	+/- \$1.2 M
ESTIMATED JOBS SUPPORTED				
CONVENTIONAL URBAN GARDENING	+/- 40	+/- 7.5	+/- 2.5	+/- 17
INTENSIVE URBAN GARDENING	+/- 75	+/- 14	+/- 4	+/- 32
HYDROPONIC	+/- 87	+/- 16	+/- 5	+/- 38

- > Only includes fresh fruits and vegetables
- > Figures are preliminary estimates based on industry averages

BACKGROUND

2.3 Microeconomic Factors

AGGREGATION AND DISTRIBUTION

Traditional agriculture often depends on economies of scale, and urban agriculture is no exception. Though many urban farms succeed in selling to local restaurants on a one-to-one basis, many lack the capacity to meet the demand of large buyers such as grocery stores or schools and hospitals. Access to these large buyers would greatly increase their long-term sustainability and positive impact on local food systems. Because urban farms are by nature small enterprises operating within space constraints imposed by the urban landscape (60 percent are less than five acres and 20 percent are less than one acre) (<http://www.npr.org/sections/thesalt/2016/03/07/469500509/urban-farms-fuel-idealism-profits-not-so-much>), they lack the ability to easily scale up production. By strengthening partnerships, aggregation capacity, and distribution networks, urban farms can overcome this limitation and better tap into local markets.

Cities can take actions to encourage suppliers to aim for larger markets. For example, Cleveland legislation allows the city to offer a five percent discount to “Certified Local Sustainable Businesses” bidding for city contracts. Local food businesses, including growers from within 150 miles of the city, are eligible for certification (<http://gogreenplus.org/cleveland-local-sustainable-business-ordinance/>). Following its implementation, local business contracts with the City increased from 29 percent in 2010 to 39 percent in 2014 (<https://ilsf.org/procurement-more-than-a-policy-change/>).

LOCAL FOOD ECONOMY

The local food economy interests stakeholders from many disciplines, including environmentalists, planners, and public health practitioners in addition to the growers, distributors, and buyers themselves.

As cities look to strengthen their entire local food economy, they often convene advisory groups whose interests extend beyond urban agriculture. For example, Baltimore’s Food Policy Advisory Committee (PAC) was created in 2010 with over 65 stakeholders from 45 organizations representing diverse interests in Baltimore’s food system with the goal of increasing health food access in the city (<http://archive.baltimorecity.gov/portals/0/agencies/planning/public%20downloads/Food%20PAC%20Organization%20List%20-%20Spring%202015.pdf>). The Food PAC provides council for Baltimore’s Food Policy Initiative, itself a collaboration between the Department of Planning, the Office of Sustainability, the Baltimore Development Corporation, and the Health Department.

The Food Policy Initiative encompassed a diverse set of programs designed to increase access to healthy food. These policies and programs not only addressed food deserts and childhood hunger, but also encouraged and supported urban agriculture as a crucial element of the local food economy. Homegrown Baltimore was one of the many outputs of this community planning process. Homegrown Baltimore, adopted in 2013, identified and addressed many barriers to urban agriculture in the city.

MARKET BARRIERS

Highest and Best Use of Land

As noted previously, urban agriculture has proliferated in cities with an abundance of vacant and/or underutilized properties since, given market conditions, this is the highest and best use of land or property. In real estate markets with strong demand for housing or commercial uses, the feasibility of urban agriculture is significantly lower. Subsidy is necessary when there are barriers to development or market failures. In other words, when the market cannot deliver beneficial goods or services, additional funding, resources or incentives are needed to fill the gap (aka gap financing). Given the associated public benefits of urban agriculture, there is a need to provide the necessary funding, incentives or policy tools, since, in most cases, the free market alone cannot provide this use.

Two Primary Barriers

There are two main types of barriers to the widespread adoption of urban agriculture as a fully-realized model of food production. The first type of barrier is economic. Small-scale farming, whether in cities or in rural areas, is not typically very profitable. According to the USDA, 75 percent of all farms have sales of \$50,000 or less per year, and one study found that urban farms perform similarly, with average sales of \$54,000 a year (Dimitri, 2014). Often, small farms turn to off-farm sources of income to supplement farm-earned income (USDA, 2015), and urban farms are no exception, utilizing grant funding or other sources of income (giving classes, renting space) to supplement income from food production.

The second type of barrier is regulatory. The institutional climate plays a large role in facilitating or impeding urban agriculture-related activities. Many cities are developing comprehensive policies around urban agriculture for the first time, often with the help of advisory committees. Some cities are taking their support for urban agriculture a step beyond removing barriers and clarifying ordinances to creating programs and plans to actively support and encourage urban agriculture.



Photo: MKSK

BACKGROUND

2.3 Microeconomic Factors

ECONOMIC IMPACTS OF FOOD HUBS

Food Hubs generate economic value in a local economy and support urban agriculture and local food systems.

The USDA strongly supports the Food Hub model in local food systems, and the past decade has seen a substantial increase in foundation and public funding to support their development. With this support, recent economic analysis identifies “a proliferation in the number and recognition of ‘Food Hubs’ across the United States.” Funders and policy makers point to the Food Hub’s ability to generate economic value within a local economy by supporting local agricultural producers. (Assessing the Economic Impacts of Regional Food Hubs: the Case of Regional Access Todd M. Schmit, Cornell University Becca B.R. Jablonski, Cornell University David Kay, Cornell University December 2013)

REGIONAL ACCESS CASE STUDY: FOOD HUB BMPS

The 2013 study: Assessing the Economic Impacts of Regional Food Hubs: the Case of Regional Access lead by a small interdisciplinary team at Cornell (Todd Schmit, Dyson School of Applied Economics and Management; Becca Jablonski, Department of City and Regional Planning; and David Kay, Department of Development Sociology/the Community and Regional Development Institute), utilized funding from an Agricultural Marketing Services Cooperative Agreement to design a best-practice methodology to evaluate the economic contributions of Food Hubs on their local economies and the mid-scale farms aggregating through hubs.

The Food Hub BMP methodology was used to create a case study analysis of a Food Hub located in Upstate New York — Regional Access, LLC. “A community-oriented, grassroots company, Regional Access was built on a vision of providing ecologically responsible, locally grown food in Upstate New York. From humble beginnings in founder Gary Redmond’s garage to their current spacious modern warehouse, the company has flourished over the last 24 years, helping to redefine regional food systems and pave the way for a myriad array of new businesses and social efforts focused on improving and developing more sustainable food connections.” (<http://regionalaccess.net/history-of-regional-access/>)

Background

Regional Access was established in 1989 and by 2011, operating with \$6 million in annual revenue — all the while remaining committed to sourcing from local farmers. During the case study review, Regional Access employed 32 full-time equivalents, operated 9 vehicles and a 25,000 square foot warehouse, delivering over 3,400 product listings to buyers in New York State.

REGIONAL ACCESS FOOD HUB ECONOMIC IMPACT RESULTS

- 32 full-time-equivalent employees
- 3,400 product listings and over 600 customers
- 37% of supplying farms were ‘small’ with less than \$250,000 in gross sales
- 20% were classified as ‘very large’ with over \$1 Million in gross sales
- Products included 37% meat and livestock, 30% fruits and vegetables, and 33% value added products
- Gross output multiplier of 1.82

The Food Hub sells to over 600 customers, including: residential households, restaurants, institutions, other distributors, fraternities and sororities, buying clubs, retailers, manufacturers, and bakeries.

Regional Access purchases products directly from 96 farm vendors — the majority in New York State — and 65 specialty processors, as well as from conventional supply chain sources.

Methodology and Results

Regional Access plays a critical role in connecting farmers, customers, and the community-at-large. They shed light on food and agricultural issues via their commitment to building relationships with local farmers, managing the aggregation, distribution, and marketing of their products, and maintaining the farm’s identity. The study authors concluded that Food Hubs have the greatest impact on increasing market access for farms.

Additionally, the Regional Access study authors found a gross output multiplier of 1.82. This means for every additional dollar of final demand for Food Hub products, an additional \$0.82 is generated in related industrial sectors.

IOWA REGIONAL FOOD SYSTEMS WORKING GROUP EVALUATION

Other economic analysis at a statewide level exists that utilizes similar methodology to track four indicators. As with most of these studies data is developed through interviews with farmers and buyers.

In Iowa the Regional Food Systems Working Group (RFSWG) conducted a 2013 evaluation in partnership with coordinators of the 15 regional food groups that comprise the statewide RFSWG. The evaluation measured four indicators of economic change:

- Local food sales by farmers;
- Local food purchases by grocery stores, restaurants and institutions;
- Job creation as a result of local food production, processing or utilization; and,
- Funds leveraged by RFSWG groups to support the development of regional food systems.

In this economic analysis, 103 farmers reported more than \$10 million in local food sales in 2012. Seventy-four local food buyers interviewed reported local food purchases totaling nearly \$9 million in 2012. Buyers included grocery stores, restaurants, K-12 schools, colleges, hospitals, nursing homes, caterers, camps and non-profits. Nearly half of the buyers (35) reported their total food budget, so the analysts were able to calculate the average percent (8.7) of budgets spent on local foods.

Local Implications of Case Studies

In the Columbus area, hub and processing models are collecting data from annual sales, types of market channels, job impacts and private and public investment. These data will have implications for Columbus's local food systems analysis such as the findings reported in these two case studies.

FOOD HUB AND DISTRIBUTION LOGISTICS MODELS

Great River Organics Model

Great River Organics (GRO) in Columbus, started in 2014 a farmer-owned, non-profit cooperative comprised of growers committed to expanding the footprint of local, certified organic products in the central Ohio marketplace. According to their website "GRO was born of our growers' passion for providing central Ohio consumers with a diverse range of locally and organically grown produce of the highest flavor, nutrition and quality—while honoring both the farmer and the environment." (<http://www.greatriverfarms.org/>) Although the farmer-owners are situated in the rural outskirts of Columbus, the aggregation facility is at 4561 East F5th Avenue adjacent to Port Columbus

International Airport. Farmer coops or other farmer-owned distribution companies often locate facilities in urban centers to be closer to markets.

Still in the early stages of hub development, GRO as a farmer coop is connecting with larger market partners such as the Whole Foods store in Upper Arlington and other grocery chains in central Ohio and Columbus, as well as Green BEAN Delivery. Featured last summer on the cover of Edible Columbus magazine, their brand continues to attract customers and larger buyers who are motivated to buy local and organic.

Red Tomato Model

Red Tomato outside of Boston, Massachusetts, has shifted from a pure Food Hub to a supply chain logistics business. In Red Tomato's early days, the company managed their own delivery trucks and warehouse. They picked up product from a network of farms, aggregated the product, managed the warehousing and did all the distribution to their various market channels.

"After several years of trying to do it all, our team realized that the resulting wear and tear was actually limiting our growth. In 2005, the team decided to divest of our warehouse and trucks. Instead, our distribution plan now relies on farmers with storage capacity to aggregate product, and farmers, distributors or third party logistics companies to move the product to its final destination." (<http://www.redtomato.org/logistics/>)

Red Tomato's shift to a logistic base model has allowed the company to grow in revenue, sales and profitability, and allowed the staff to focus on what they believe they do best: customer service, marketing and product development. In doing, they have brought better income results to their farmers and increased the affordability of fresh, local food to their customers — many who live in underserved urban markets.

Azoti Model

A more local, logistics model is Azoti.com Local Food Solutions in Columbus. The company's goal is to provide value to everyone in the food supply chain so large buyers can justify local food price premiums. Since their opening in the spring of 2012, they have focused on identifying and working with small agricultural producers. Primarily working as software-as-a-service platform consists of two key modules: Demand Planning and Just in Time Inventory that allows large buyers and distributors to engage with small local producers through a centralized ordering and delivery platform.

Azoti focuses on the marketing benefits of local food. By working with corporate buyers they bring a hybrid CSA model to a base of local food customers conveniently to their workplaces. They diagram their leverage point as the development of a supply chain that captures value for all the stakeholders in the local food value chain.

BACKGROUND

2.3 Microeconomic Factors



Photo: MORPC

Potential for Additional Food Hubs

Columbus could easily replicate a number of Food Hub models in targeted neighborhoods. But for Food Hubs to be financially viable they need to serve mid-size farm operators as well as small producers or beginning farmers. An urban hub can encourage aggregation that combines produce and processed food lines sourced from urban farmers and specialty food processors, as well as rural producers to reach the scale necessary to be sustainable. Distribution, processing and marketing services would add to the number of new business starts and job creations within targeted neighborhoods.

More Food Hub type businesses in Columbus could not only foster the success of urban agriculture and green businesses efforts in the City, but also bring healthy food options into the neighborhoods where they are not currently available.

FOOD HUBS FOSTER ECONOMIC IMPACT THROUGH VARIOUS MEANS

1. Encourage more urban farmers to grow produce aggregated and distributed by a Food Hub
2. Encourage season extension among urban growers and urban farm incubators
3. Create new distribution and delivery systems for urban and regional farm operators to aggregate under one Food Hub brand
4. Provide new Food Hub management and operations jobs
5. Design new workforce programs for beginning farmers to learn in Food Hubs, farm incubators and placements with urban farmers
6. Connect to value-added processors and kitchen incubator operators to expand product lines for distribution

“Local food has always been about value for health, soil and the environment; now you can get that same value plus tangible ROI for all participants”

—Azoti.com Local Food Solutions in Columbus, Ohio

HARNESSING THE POWER OF LOCAL DEMAND

Demand for local and regional food is growing in Columbus. Having the infrastructure in place for the production, aggregation, processing and distribution of local food will be crucial to capture the direct and indirect economic benefits of growth in the local food supply chain.

Local stores such as Celebrate Local, started as an initiative of ECDI have demonstrated the demand for local and regional food products. Celebrate Local is the retail home to more than 300 Ohio artisans, small businesses and agricultural producers. Their first location opened in 2010 at Easton Town Center with 60 local producers and after 2 years expanded to a larger storefront in order to accommodate the growing demand of customers and new vendors. In 2015, Celebrate Local opened their second retail store at Liberty Center serving customers from the Dayton and Cincinnati area.

A new online marketplace brings hundreds of Ohio-made products to customers all across the nation. Many central Ohio specialty food processors, craft beverage makers, farmers and makers have not only benefited from expanded market access, but also receive small business support services to grow their individual businesses from market partners like Celebrate Local, Whole Foods and the Hills Market.

Columbus is experiencing a renaissance, like many urban places, in the artisanal food sector. Having integrated infrastructure that supports these types of businesses in the city or identified target neighborhoods can accelerate job growth through ownership and microenterprise sector development. New Market outlets create more demand and retail grocers shift to local and regionally produced product lines. Many of the Columbus product lines continue to access regional markets and grow jobs beyond their founding entrepreneurs.

SECTION 3

ENGAGEMENT

Section 3 discusses the engagement efforts conducted during the planning process. Numerous meetings were held with stakeholder groups and members of various City departments. Through this dialogue, it became clear that a number of barriers currently exist which limit the expansion of green business and urban agricultural practices in Columbus. These were classified as practical, regulatory, economic and market barriers. Practical barriers focus on basic needs such as land, water, and capital. These barriers are typically experienced by producers as they began operation or seek to expand. Regulatory barriers stem from City ordinances, processes, and systems that are challenging to understand or are limiting accepted practices for urban growers and producers. Market barriers focus on access to consumers and the local food system infrastructure in Columbus and Central Ohio.

ENGAGEMENT

3.0 Engagement Process

ENGAGEMENT PROCESS: IDENTIFYING BARRIERS

The input and engagement process was critical to the success of the Green Business and Urban Agriculture Plan. The first three Policy Workshops were held during the phase 1 of the project.

POLICY WORKSHOP #1:

- Gathered initial data and input
- Identified departmental interactions with urban agriculture

POLICY WORKSHOP #2:

- Presented initial recommendations
- Gathered feedback for initial recommendations
- Received additional comments

POLICY WORKSHOP #3:

FOCUS GROUP

On November 17, 2015, a focus group of urban farmers and food producers identified barriers to urban farming in the City of Columbus. A total of 57 individuals participated in this forum which featured a panel discussion with three successful urban farmers from Columbus. The panel was followed by a facilitated discussion with all participants. Below are the barriers to urban farming identified by the group.

KEY POINTS FROM FOCUS GROUP

- Veggie Snaps effectively increases access to local food for low income individuals
- Farming parcels greater than 5 acres provides exemption from many zoning regulations
- Code enforcement is uneven throughout the City
- Most individuals are unaware of basic rules and ordinances affecting food production — FAQ fact sheets are needed
- Educating the public about food quality helps urban food producers

BARRIERS TO URBAN FARMING AS IDENTIFIED BY FOCUS GROUP

- City zoning — structures, retail sales, complexity, lack of knowledge
- Communicating with public officials
- Land tenure
- Navigating regulations with different political subdivisions — City v. County
- Water — cost and availability
- Land bank — land tenure, bureaucracy of purchasing
- General public's lack of knowledge about agriculture – composting
- Theft – tools, produce
- Animal damage
- Storm water mitigation rules
- Financial viability
- Lack of formal training program
- Neighbors — nuisance ordinance, lack of education
- Cost of complying with regulations— all levels of government
- Lack of funding for redevelopment of abandoned properties for food production
- Post harvest barriers — marketing, storage, processing

BARRIERS TO STARTUPS AND BUSINESS OWNERSHIP

Business owners, startups, and non-profit organizations identified barriers which stem from existing policies and regulations. Several barriers focused on the need for an ongoing dialogue with city officials and departments, the general public, real estate and economic development organizations, funding entities, and educators about the expansion of urban agriculture and local food systems.

OTHER BARRIERS

Other challenges were identified as well. Many of the current policies in place treat these uses as a placeholder land use. Agriculture uses are not currently a major generator of economic development. Others argued fresh fruit and vegetables need to be more accessible to all city residents and urban agriculture can provide a source in underserved neighborhoods that currently do not have access.

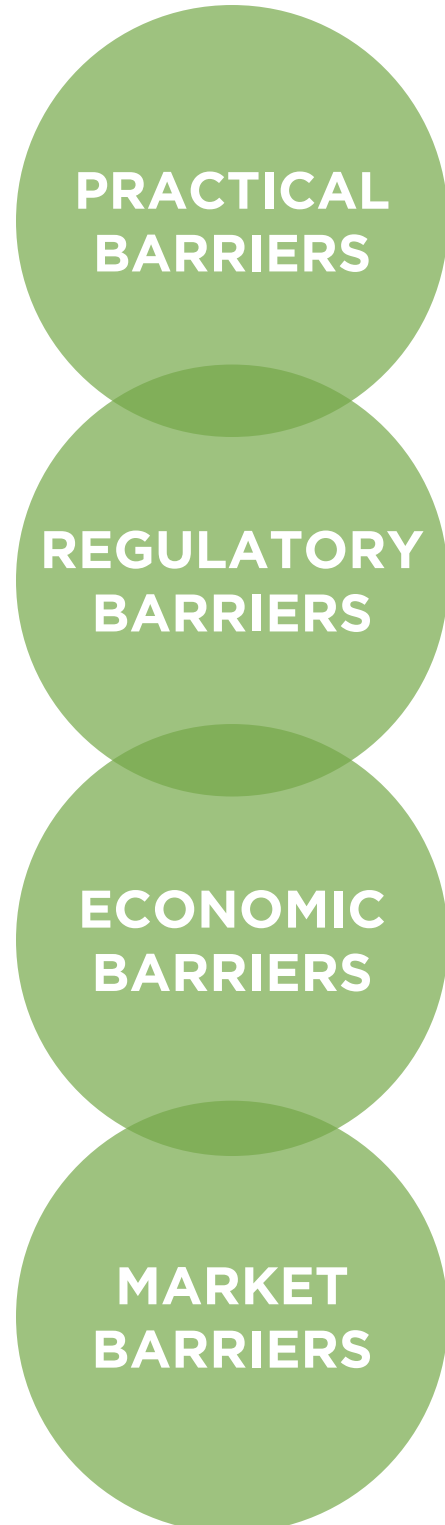
FOUR KEY BARRIERS TO GREEN BUSINESS AND URBAN AGRICULTURE

In subsequent engagement efforts, including three stakeholder workshops and site visits to local and regional urban farms and production facilities, additional barriers were identified.

All barriers to urban farming in Columbus that were identified through the engagement process for this plan are organized into four categories. Barriers are explained in detail in the following tables and organized by the four categories.

- Practical Barriers, labeled P-1 to P-7
- Regulatory Barriers, labeled R-1 to R-8
- Economic Barriers, labeled E-1 to E-5
- Market Barriers, labeled M-1 to M-4

FIGURE 3.0.01: BARRIERS TO GROWTH



ENGAGEMENT

3.1 Practical Barriers

PRACTICAL BARRIERS

Practical barriers to urban agricultural practices are often associated with access to capital and equipment, lack of suitable land, logistical requirements, and labor or maintenance.

“The healthcare sector is changing. They’re writing prescriptions for produce, but there is still a cultural or practical barrier that stands in the way of cooking, preparing and eating those prescribed foods.”

KEY PRACTICAL BARRIERS IDENTIFIED BY THE STAKEHOLDER GROUPS INCLUDE

- A cultural divide exists between city officials and decision-makers, and producers
- An overall lack of suitable land
- Logistical requirements are not met within available properties (i.e., loading, proximity to interstate)
- Sensitivity to neighborhood/community fabric often lead to locations outside of city
- A lack of skilled laborers (often times companies will relocate workers)
- The cost of equipment for intensive, high-yield, technologically-driven business models
- No single source or contact for startups exists
- The City considers urban agriculture a “less-intense use” in terms of job creation and economic development
- Multiple organizations are attempting urban agriculture and doing well, but no single “champion” exists

P-1	Need for Dialogue Between Public Officials and Elected Leaders for Urban Agriculture and its Benefits
	<p>Description: The stakeholders commonly discussed the need for a more robust and informed dialogue when seeking support from public officials and elected leaders for green business and urban agricultural projects and activities.</p> <p>Stakeholder Comments:</p> <ul style="list-style-type: none"> > There is a lack of understanding of urban agriculture among public officials and decision makers. > There is confusion about the needs of urban agriculture and how to best support it.
P-2	Need for Public Dialogue about Urban Agriculture and Local Food Systems and their Potential Benefits
	<p>Description: The stakeholders often described a need for increased public dialogue regarding urban agriculture, green business, and local food systems.</p> <p>Stakeholder Comments:</p> <ul style="list-style-type: none"> > The general public does not understand the community and social impacts of urban agriculture. > Public education is needed to address complaints about permitted activities. > Promote educational and social agendas within community — develop systems that require urban agriculture for community success and well-being. > The plan should address people’s perceptions — backyard gardens are not nuisances.

P-3	Lack of Available Land and/or Buildings for Urban Agriculture and Green Business Activities
	Description: The stakeholders identified land tenure as a barrier when not guaranteed for a sufficient time period to establish a profitable/functional farm and site selection is a challenge for processing.
	Stakeholder Comments: <ul style="list-style-type: none"> > Why can't the public utilize infrastructure corridors for agricultural use (i.e., a trail corridor)? > City economy is rather strong and land values are seemingly high, therefore urban agriculture is not seen as the highest and best use at this time. > Facilitate identification of buildings, land, sites for urban agriculture operations — city needs to develop a good inventory of opportunities. > Short land tenure periods with land bank properties discourages their use as urban agriculture sites.
P-4	Lack of Tools, Labor, or Other Basic Resources
	Description: The stakeholders noted that shared resources can reduce initial startup costs.
	Stakeholder Comments: <ul style="list-style-type: none"> > There are basic services and infrastructure that the city could help develop — packaging, processing — to pool resources and disperse risk for small operators. > Cost of machinery, like trucks and tillers, and other items is a barrier. Area commissions could work with community members and neighbors to pool and share resources for the benefit of all. > Frequent turnover of staff is an issue for volunteer supported non-profits.
P-5	Vandalism of Urban Agriculture Facilities and Theft of Equipment
	Description: Stakeholders identified security as important to protect equipment and reduce theft.
	Stakeholder Comments: <ul style="list-style-type: none"> > Urban agriculture is often seen as nuisance to neighbors. > There needs to be repercussions for those who constantly complain (and deface properties) when producers and organizations are within their legal rights.
P-6	Access to Affordable and Convenient Water for Irrigation, Washing, and other Needs
	Description: Stakeholders identified cost and availability of potable water as a major barrier to developing and expanding urban farms, particularly in light of recently revised federal guidelines for food safety (FSMA).
	Stakeholder Comments: <ul style="list-style-type: none"> > Water tap access could be improved and fees could be subsidized through a grant or other funding. > Initial water tap hook-up fees are a barrier to startups. > Sanitation concerns exist with water harvested from cisterns.
P-7	Uncertainty of Soil Quality for Growers and For Suppliers
	Description: Stakeholders indicated that soil testing for contaminants should be conducted by the city for land-bank properties before they are leased for food production.
	Stakeholder Comments: <ul style="list-style-type: none"> > Complete remediation of soils and land is cost prohibitive. > Concerns from growers and suppliers about lead and other contaminants in soils. Soil testing should be considered for all projects.

ENGAGEMENT

3.2 Regulatory Barriers

REGULATORY BARRIERS

The stakeholders identified education, permitting, site development and zoning as regulatory barriers. These barriers were brought to the forefront throughout the workshop discussions and create challenges for many businesses, organizations, and residents within the city. Many stakeholders in the workshops experienced a variety of different interpretations of the same regulations.

The institutional climate plays a large role in facilitating or impeding urban agriculture-related activities. Many cities are developing comprehensive policies around urban agriculture for the first time, often with the help of advisory committees. Some cities are taking their support for urban agriculture a step beyond removing barriers and clarifying ordinances to creating programs and plans to actively support and encourage urban agriculture.

TOP 5 LAND USE + ZONING BARRIERS

1. Undefined agriculture use terms
2. Five acre lot minimum for agriculture
3. Discretionary special permits required in non-residential zones
4. Lack of clarity around accessory uses such as on-site sales
5. No comprehensive, cohesive set of urban agriculture land use regulations

R-1	Inconsistency and Confusion in City Regulatory Processes
	<p>Description: Stakeholders cited communication with city officials/departments and consistency in messaging from city employees as a major barrier to developing and expanding urban farms.</p> <p>Stakeholder Comments:</p> <ul style="list-style-type: none"> > A One-Stop review shop could benefit smaller operators and help them thrive — business plan, drawings, ideas must be clearly articulated. > Lack of a single point of contact within the city for urban agriculture makes this process more confusing.
R-2	Lack of Explicitness in Code Permission of Urban Agricultural and Green Business Practices
	<p>Description: Season extension utilizing hoop houses and high tunnels is critical for economic success of urban farming. Targeted USDA funding of these structures is planned for Columbus.</p> <p>Stakeholder Comments:</p> <ul style="list-style-type: none"> > There are no explicit definitions for urban agriculture. > There needs to be clarification that hoop houses are not occupiable; address scale/size of hoop house. > Development processes and regulations are reactive, not proactive.
R-3	Limitations within Existing Codes for Urban Agriculture and Green Business Practices
	<p>Description: The stakeholders commonly discussed a need to modify existing zoning, health, and other codes to accommodate green business and urban agricultural practices.</p> <p>Stakeholder Comments:</p> <ul style="list-style-type: none"> > Building code standards must be addressed. > Processing and distribution needs clarification so the city can understand appropriate needs and uses and how they lay out on a site. Delivery and logistical requirements constrain site layout and program. > Codes prohibit access to direct markets — most residential operators are not allowed to sell products from their properties. > Current policies limit the planting of fruit/nut trees on public lands, limiting foraging opportunities on naturalized trails and parks.

R-4	Need for Stormwater Management Regulations which Support Specific Needs and Potential Benefits of Urban Agriculture
	<p>Description: The stakeholders discussed the need for urban agriculture specific stormwater management policies.</p> <p>Stakeholder Comments:</p> <ul style="list-style-type: none"> > The need to provide stormwater quantity and quality per the manual when you disturb more than 10,000 SF, or creating 2,000 SF of impervious surface can inhibit a project. > Existing policies do not recognize the benefit of urban agriculture for stormwater management.
R-5	Limitations on Green Businesses and Urban Agriculture Growth Because of Permitting Fees and Associated Regulatory Costs
	<p>Description: Green businesses and urban farms typically have very low operating costs and profit margins. The costs of permitting fees can discourage or prohibit projects from initiating or growing.</p> <p>Stakeholder Comments:</p> <ul style="list-style-type: none"> > Fee structure creates a barrier for those without financial resources. > Many social enterprises have very limited available funding and permitting fees are very burdensome.
R-6	Limitations on Composting Practices by Regulatory Codes, Processes, and Enforcement
	<p>Description: Compost is an important component of urban farming. The stakeholders discussed a need for more permissive regulations regarding compost.</p> <p>Stakeholder Comments:</p> <ul style="list-style-type: none"> > Misconceptions by the public about composting issues including, potential odor, runoff, maintenance of bins/ systems. > Fertilizers (synthetic and organic) have potential health threats for individuals — how to dictate or regulate use and volume? > Chicken and animal waste are considered solid waste. How can this be classified as a soil amendment?
R-7	Lack of a Clear Process for Neighborhood/Community Review and Engagement
	<p>Description: There is currently not a clear or defined process for neighborhood review of urban farms.</p> <p>Stakeholder Comments:</p> <ul style="list-style-type: none"> > Protect producers AND neighbors/community. > There should be a process for engaging communities as to the potential impact — similar to a zoning review/ hearing for educational purposes. > Home owner associations have another level of governance that is prohibitive in many cases — education is crucial.
R-8	Lack of Explicitness in Animal Husbandry Policies and Codes
	<p>Description: Existing animal husbandry regulations are not clear and need additional language for permitting and enforcement.</p> <p>Stakeholder Comments:</p> <ul style="list-style-type: none"> > City code does not clearly define egg seller as business (for proposed animal husbandry regulations). > Businesses and individuals have different requirements – not explicitly clear what applies to businesses vs. individuals.

ENGAGEMENT

3.3 Economic Barriers

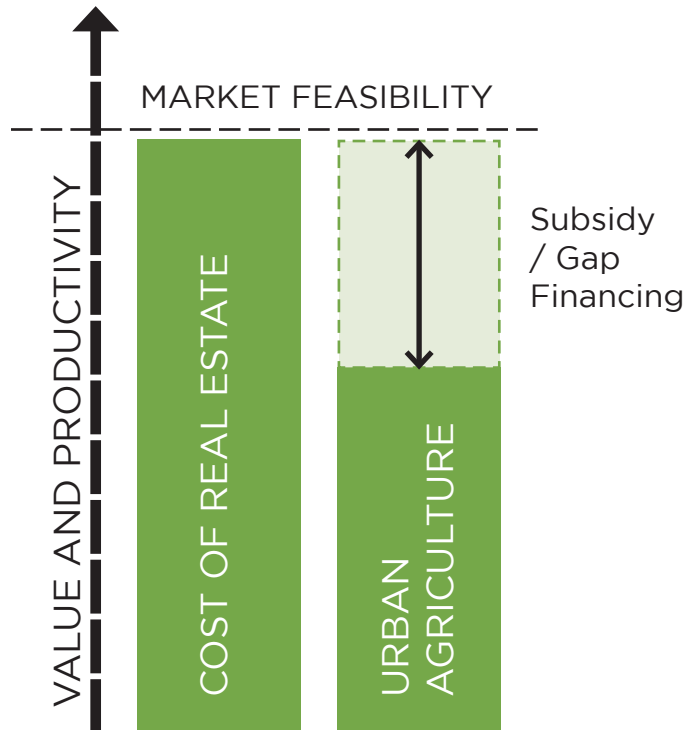
ECONOMIC FEASIBILITY

Urban agriculture has proliferated in cities with an abundance of vacant and/or underutilized properties. Given those market conditions, this is an economically feasible use of land or property. In real estate markets with strong demand for housing or commercial uses, the feasibility of urban agriculture is significantly lower.

Subsidy is necessary when there are barriers to development or market failures. When the market cannot deliver beneficial goods or services, additional funding, resources or incentives are needed to fill the gap (aka gap financing). Given the associated public benefits of urban agriculture, there is a need to provide the necessary funding, incentives or policy tools, since, in most cases, the free market alone cannot provide this use.

Further, small-scale farming, whether urban or rural, is not typically very profitable. According to the USDA, 75 percent of all farms have sales of \$50,000 or less per year, and one study found that urban farms perform similarly, with average sales of \$54,000 a year (Dimitri, 2014). Often, small farms turn to off-farm sources of income to supplement farm-earned income (USDA, 2015). Urban farms are no exception, utilizing grant funding or other sources of income (giving classes, renting space) to supplement income from food production.

FIGURE 3.3.01: MARKET FEASIBILITY OF URBAN AGRICULTURE



E-1	Lack of Public Sector Funding or Financial Support for Green Business and Urban Agriculture
	<p>Description: The Stakeholders discussed a lack of public sector funding and a perception that green businesses and urban farms are not considered to be economic and community development drivers.</p> <p>Stakeholder Comments:</p> <ul style="list-style-type: none"> > City does not consider urban agriculture as a job producer. > There needs to be an internal champion at the city to educate about systems, economic development potential, and sustainable models to inform agencies about green businesses and urban agriculture. > Economic upside of urban agriculture is hard to reach — gap funding and incentives all help startups; consolidating resources for these gap funds can help alleviate this. > Producers are looking for gap funds — city has incentive and investment partners to rally around food so there should be a way to connect these individuals to achieve social and economic benefits.
E-2	Need for Access to Private Capital or Financial Support for Green Business and Urban Agriculture
	<p>Description: Although some private sector entities are providing financial opportunities, there is a need for additional support.</p> <p>Stakeholder Comments:</p> <ul style="list-style-type: none"> > Entrepreneurs must become better educated about business planning, but lenders must understand the possibilities of the emerging food sector. > Underwriters and lenders are not familiar with urban farming business models and unwilling to lend — ROI is not always quick or high enough.

E-3	Lack of Clear and Effective Communication Between Urban Farmers/Green Business Owners and Financial Resources
	<p>Description: Many stakeholders identified a desire for an ongoing mechanism to connect them with potential funding sources.</p> <p>Stakeholder Comments:</p> <ul style="list-style-type: none"> > Create a venue for economic connections — funding, investments, technology, jobs. > Many interested parties do not understand or have knowledge of available support programs, funding, and education opportunities.
E-4	Need for Additional Support as Job Creation Methods
	<p>Description: The stakeholders discussed the opportunity to create jobs, but a need to tailor an economic development policy to green businesses and urban farms.</p> <p>Stakeholder Comments:</p> <ul style="list-style-type: none"> > Urban agriculture is not job intensive — most jobs created are sole-proprietors. > Urban agriculture typically has small margins with high yields. > Realistic economic development policy needs to be established — work with existing users and regional entrepreneurs.
E-5	With Proper Support, there is Potential for Columbus to Become a Technological Leader in Urban Agriculture
	<p>Description: With access to an educated, motivated workforce and a major research university, the stakeholders noted that Columbus could become a major leader in the development of green business and urban farming technology.</p> <p>Stakeholder Comments:</p> <ul style="list-style-type: none"> > A variety of technologies are available, but Columbus has showed little interest in higher yield, intensive, technology-driven agriculture practices. > There needs to be a big goal which drives us toward something. > Create some sort of regular event to connect people in this field and foster innovation.

“There’s no systematic connection of resources. There are those that fall through the gaps and that puts our food system at risk.”



Photo: OSU Extension

ENGAGEMENT

3.4 Market Barriers

ESTABLISHING THE MARKET FOR A LOCAL FOOD SYSTEM

To strengthen the market for local food, stakeholders identified a need for education, supportive policies, and communication. There is an increasing demand for local food that producers are struggling to meet at small and large scales. At an individual grower level, stakeholders feel local policies are inhibiting access to consumers and restricting the market. At a larger scale, lack of infrastructure, such as processing and aggregation facilities, inhibits producers from scaling up and expanding. Facilitating communication between producers, distributors, and consumers will connect resources in the supply chain, which will strengthen the local food system.

“There are several companies that are constantly trying to find fresh, local produce and end up looking at other suppliers outside of Columbus — so the demand is there...”



Photo: MORPC



Photo: MORPC



Photo: MORPC

M-1	Lack of Clarity for Most Appropriate Products for Central Ohio Market
	<p>Description: The stakeholders expressed a desire to mitigate the risks associated with developing and introducing new products into the local market. This could be accomplished by identifying and supporting key “base” products which possess lower risk for market acceptance.</p> <p>Stakeholder Comments:</p> <ul style="list-style-type: none"> > Identify niche products for local economy — what is Columbus able to grow and/or produce better than any other area in the Midwest? > Market is not defined as in other cities with developed urban agriculture economies — this presents problems for growers and niche markets; a need to keep testing.
M-2	Disconnection Between Urban Agriculture/Green Business and Other Strong Business Sectors in Columbus
	<p>Description: Given the shift toward locally sourced food is relatively new, the stakeholders discussed the need and the opportunity to connect to other strong business sectors in Columbus such as logistics, technology, and healthcare in order to support additional growth.</p> <p>Stakeholder Comments:</p> <ul style="list-style-type: none"> > Columbus is a Midwest logistics hub and could easily add food products to its network. > Need more support from institutional and large scale buyers. > Need more opportunities for aggregation. > There is a potential to connect to major corporations in order to support sustained and consistent demand for locally sourced produce and goods.
M-3	The Local Food Supply Chain is Not Strong or Consistent Enough to Support Expansive and Sustained Growth of the Sector
	<p>Description: Given that local food is a relatively small piece of the overall food supply chain, growing the proportion of local supply is challenging in a very competitive market. The stakeholders expressed the need for help to overcome challenges in logistics and cost-competitiveness.</p> <p>Stakeholder Comments:</p> <ul style="list-style-type: none"> > Farmers and operators see major demand for local products but the supply is not there. > There are gaps in the supply chain. > Scaling up is difficult for small and mid-size farms.
M-4	Need to Expand Opportunities for Community Supported Agriculture (CSA's) & Farm Stands/Markets
	<p>Description: The Community Support Agriculture (CSA) product delivery system for locally sourced produce and other products has proven to be a viable method to support small urban farms. The stakeholders expressed a desire to clarify and/or modify regulations relative to CSA operations which may include farm stands, sales/pickups on residentially zoned parcels, and expanded growing/production on various types of parcels.</p> <p>Stakeholder Comments:</p> <ul style="list-style-type: none"> > CSA producers should demonstrate the benefits to the adjacent neighborhood. > Need to explore opportunities to enable and incentivize CSA's > CSA's are critical for urban farms to survive. There needs to be stronger market and regulatory support. > Need to provide marketing opportunities and technical support for CSA's including website construction, branding, sales platforms, etc. > Direct to consumer on-site sales provide the largest profit margins and are necessary for farms to be profitable.

SECTION 4

RECOMMENDATIONS

Section 4 contains recommendations developed by the project team organized into eight categories: general recommendations, building and zoning services, economic development, land redevelopment, neighborhood services, public utilities, public health, and recreation and parks. Each recommendation identifies one or more corresponding action item from the Local Food Action Plan, its overall intent, the barriers addressed that were outlined in the Engagement section, indicator to measure success, potential partnerships for implementation, and specific action items for implementation.

RECOMMENDATIONS

4.0 Introduction

CONTENT OF RECOMMENDATIONS

Chapter 4 provides recommendations for policy changes, code modifications, partnership opportunities, and funding mechanisms. These recommendations are based on the collaborative efforts of the Working Group, Stakeholders, and Consultant Team. They are intended to be implemented over time, with some recommendations requiring immediate attention, while others may be phased in over time. Still others will require further research and dialogue.

Each recommendation includes the following six elements:

1. Corresponding Local Food Action Plan Strategy

Fundamentally, each recommendation is intended to build upon the broader recommendations of the Local Food Action Plan by advancing them to fit within the context of the City of Columbus. This includes demographic, geographic, and economic conditions within the City limits as well as existing policy and regulatory considerations administered by City government.

2. Intent

A brief description of each recommendation's intent of is provided for context.

3. Barriers Addressed

Barriers identified in the engagement process are listed with each recommendations that addresses them.

4. Indicators

Metrics are proposed to provide measurement tools to determine the success of the plan over time, and to make future policy adjustments as necessary.

5. Partnerships

Nearly all the recommendations will require partnerships to provide technical support, community engagement, and funding for immediate and ongoing implementation. MORPC and OSU Extension will provide critical support and likely assist with the implementation of all recommendations. Each recommendation lists additional partnerships as applicable.

6. Strategies

Each recommendation includes specific action steps which specifically describe both near-term and long-term steps for ongoing implementation.

ORGANIZATION OF RECOMMENDATIONS

Recommendations are organized by the City Department or Division in which they are most applicable. This organization clearly articulates the potential 'ownership' of each recommendation for implementation.

1 GENERAL RECOMMENDATIONS

Section 4.1 includes recommendations that extend beyond a single City Department or require support through the Mayor's Office or City Council. Recommendations are labeled 1A to 1E.

2 BUILDING AND ZONING SERVICES

Section 4.2 addresses considerations related to building and/or zoning codes, policies, and processes. Recommendations are labeled 2A to 2C.

3 ECONOMIC DEVELOPMENT

Section 4.3 includes recommendations for various economic development practices, programs, and funding partnerships. Recommendations are labeled 3A to 3H.

4 LAND REDEVELOPMENT

Section 4.4 addresses functions in the Land Redevelopment Division which manages the City's Land Bank and has played a direct role in many existing urban farms. Recommendations are labeled 4A to 4C.

5 NEIGHBORHOODS

Section 4.5 addresses neighborhood level urban design, outreach, and project review considerations. Recommendations are labeled 5A to 5E.

6 PUBLIC UTILITIES

Section 4.6 includes considerations for stormwater management facilities and other public utilities. The recommendations is labeled 6A.

7 PUBLIC HEALTH

Section 4.7 provides recommendations related to animal husbandry and composting. Recommendations are labeled 7A and 7B.

8 RECREATION AND PARKS

Section 4.8 addresses urban food and agriculture opportunities in public parks or open spaces. Recommendations are labeled 8A and 8B.

OPPORTUNITIES AND MODEL EXAMPLES

Select recommendations are accompanied by partnership opportunities, and locally and national examples of policy models to provide context.

These are broken into two categories:

PARTNERSHIP OPPORTUNITY

These case studies and examples identify potential partnerships with local organizations for the City of Columbus in implementing the Green Business and Urban Agriculture Plan.

POLICY MODEL

These case studies and examples illustrate policy approaches by other municipalities that create programs, initiatives, and resources to support and encourage Green Business and Urban Agriculture.



INTENT OR OBJECTIVE

The intent or objective of the partnership opportunities and policy models are classified into the following categories:



COMMUNITY ENGAGEMENT



REGULATORY MECHANISMS



WASTE RECOVERY



FUNDING MECHANISM OR FINANCIAL STRATEGY



LOCAL FOOD DEMAND



EDUCATION AND RESOURCES



GROWER/PRODUCER SUPPORT



PROCESSING/DISTRIBUTION SUPPORT



PHYSICAL INFRASTRUCTURE SUPPORT

RECOMMENDATIONS

4.1 General Recommendations

RECOMMENDATION 1A: Create a City of Columbus green business and urban agriculture brand identity, web portal, and dedicated annual funding program

CORRESPONDING LOCAL FOOD ACTION PLAN ACTION ITEM:

- > **A-1:** Establish a Joint City and County Local Food Team and advisory group to coordinate the implementation of the Local Food Action Plan and connect to other food system initiatives.
- > **B-5:** Grow capacity and enhance viability of civic agriculture to allow more residents to grow food for themselves and their neighbors.
- > **C-2:** Establish a local food supply connector position to expand market opportunities for local food.
- > **C-9:** Connect new or growing small-scale neighborhood food businesses to flexible financial and technical assistance options.

INTENT:

- > Provide regulatory and business guidance to existing or potential urban farmers and green business owners.
- > Prominently put local-food jobs and businesses on the economic-development agenda.
- > Coordinate aggregation opportunities between buyers and sellers.
- > Offer educational tools and brochures.
- > Provide guidance for entrepreneurs to offer SNAP/WIC.
- > Coordinate opportunities to reuse waste.
- > Communicate with farm and food incubators to identify graduates for business development in targeted neighborhoods.

BARRIERS ADDRESSED:

- > **Regulatory Barrier R-1:** Inconsistency and confusion in city regulatory processes.
- > **Practical Barrier P-1:** Need for dialogue between public officials and elected leaders for urban agriculture and its benefits.
- > **Economic Barrier E-1:** Lack of public sector funding or financial support for green business and urban agriculture.
- > **Economic Barrier E-5:** With proper support, there is potential for Columbus to become a technological leader in urban agriculture.

INDICATOR:

- > Metric number of visits to online portal.

PARTNERSHIPS:

- > Joint City and County local food team.
- > Local food and green business advocacy groups.
- > Mid-Ohio Regional Planning Commission.
- > OSU Extension.

STRATEGIES:

- > **Strategy 1A.01:** Create an online portal or directory that citizens, farmers, entrepreneurs, and other interested parties could access for information related to zoning, funding, partnership opportunities, educational resources, and other relevant information.
- > **Strategy 1A.02:** Create a referral system to connect food and green businesses to entrepreneurial support services — city portal that provides directory.



Policy Model: CITY OF MINNEAPOLIS HOMEGROWN MINNEAPOLIS



Homegrown Minneapolis
healthy food. healthy city.

Homegrown Minneapolis is a local food initiative of the City. Their web page that provides a portal for residents and businesses to find food-related policy, financing tools, shared license kitchen facilities, location maps, and urban agriculture general information. The urban agriculture portal has links to policy information, City programs, and resources for different types of urban agriculture activities, including chickens, composting, and hoop houses.

The Homegrown Minneapolis website provides a one-stop-shop for all local food related policy, tools and resources.

(Source: <http://www.minneapolismn.gov/sustainability/homegrown/>)

Homegrown Minneapolis

Homegrown Minneapolis is a citywide initiative expanding our community's ability to grow, process, distribute, eat and compost more healthy, sustainable, locally grown food. Homegrown Minneapolis brings together key partners from local government, area businesses, community organizations, non-profits, and residents to build a healthy, vibrant local food system.



Food Council and Policy Resources
Food Council information and material, local food policy, and research and reports.



Urban Agriculture
Market, community, and home gardens, urban farming, bees and chickens, composting, hoophouses, and greenhouses.



Food Preservation, Preparation, and Kitchen Facilities
Kitchen facilities, the "Pickle Bit" food safety, and cooking classes.



Resources for Food Businesses
Starting, financing, and developing your local food business.

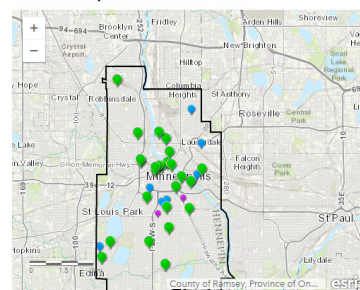


Farmers Markets/Shop Local
Farmers markets and other ways to shop for fresh local foods.



News and Events
Homegrown Minneapolis news and events calendar.

2016 Minneapolis Farmers Markets



Urban Agriculture

Urban agriculture contributes to our city's food security and food safety. It increases the total amount of food available to people living in cities. It also allows fresh, high quality produce, and other food products to be grown and produced for urban customers. The pages below include resources for all types of people involved in urban agriculture activities, urban farming and gardening to raising chickens and bees. Explore each page for additional information and resources.

Urban Farms and Market Gardens
City policy and regulations, hydrant water permits, on-farm food safety, and more.



Community Gardens
Available parcels for lease, tools and education, hydrant water permits, and funding.



Keeping Bees & Supporting Pollinators
Rules, permits, and how to support pollinators.



Keeping Chickens
Rules and permit information.



Composting and Soil Health
How and why to compost, and compost access for community gardens.



School Gardens
Resources for starting and sustaining a school garden.



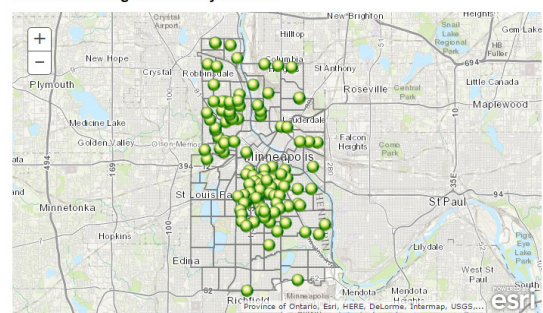
Hoop Houses and Greenhouses
Guidelines for using hoop houses and greenhouses in Minneapolis.



Home Gardens
Tips, guidelines, and links to useful resources.



Food Producing Community Gardens



[View Larger Map](#). Some garden locations are approximate – see [Gardening Matters](#) for a full directory.

RECOMMENDATIONS

4.1 General Recommendations

RECOMMENDATION 1B: Create, identify or contract for services with a green business and urban agriculture concierge/coordinator

CORRESPONDING LOCAL FOOD ACTION PLAN ACTION ITEM:

- > **A-1:** Establish a Joint City and County Local Food Team and advisory group to coordinate the implementation of the Local Food Action Plan and connect to other food system initiatives.
- > **B-5:** Grow capacity and enhance viability of civic agriculture to allow more residents to grow food for themselves and their neighbors.
- > **C-2:** Establish a local food supply connector position to expand market opportunities for local food.
- > **C-9:** Connect new or growing small-scale neighborhood food businesses to flexible financial and technical assistance options.

INTENT:

- > Establish a staff or contract position that connects urban farmers with appropriate codes and staff; assists food supply-chain businesses with code, siting, and expansion questions; helps businesses and institutions find local food sources.
- > Prominently put local-food jobs and businesses on the economic-development agenda.
- > Coordinates with other local government agencies.
- > Offer educational tools and brochures.
- > Provide guidance for entrepreneurs to offer SNAP/WIC.
- > Coordinate opportunities to reuse waste.
- > Communicate with farm and food incubators to identify graduates for business development in targeted neighborhoods.

BARRIERS ADDRESSED:

- > **Regulatory Barrier R-1:** Inconsistency and confusion in City regulatory processes.
- > **Practical Barrier P-1:** Need for dialogue between public officials and elected leaders for urban agriculture and its benefits.
- > **Economic Barrier E-1:** Lack of public sector funding or financial support for green business and urban agriculture.
- > **Economic Barrier E-5:** With proper support, there is potential for Columbus to become a technological leader in urban agriculture.

INDICATOR:

- > Quantity of calls received or meetings held.
- > Quantity of projects receiving building or zoning permits.
- > Number of local-food businesses created or expanded.
- > Number of partners assisting with food and green enterprise development.
- > Number of visits to online portal.

PARTNERSHIPS:

- > Joint City and County local food team.
- > Local food and green business advocacy groups.
- > Mid-Ohio Regional Planning Commission.
- > OSU Extension.

STRATEGIES:

- > **Strategy 1B.01:** Modify existing small business concierge position to include direct communications with urban farmers, green business owners, and other related entities.
- > **Strategy 1B.02:** Establish a regular coordination meeting with Local Food Team.
- > **Strategy 1B.03:** Advance concierge position into full-time urban agriculture and green business outreach and advocacy coordinator.
- > **Strategy 1B.04:** Seek grants to support the coordinator position in its initial, pilot years.



Policy Model:
CITY OF ATLANTA
DIRECTOR OF URBAN
AGRICULTURE



GRO1000™

Last year, the City of Atlanta hired Mario Cambardella as the City's first Urban Agriculture Director, a full-time position within the Office of Sustainability. Responsibilities include:

- Policy development
- Brownfield conversion
- Improving access to land
- Facilitate the permitting process
- Manage code compliance

The City's goal is to "bring local, healthy food within a half-mile of 75 percent of all residents by 2020."

The City recently expanded its Urban Agriculture Program through a \$40,000 grant through GRO1000, the garden and green space development grant program from ScottsMiracle-Gro company.

(Source: City of Atlanta Press Release)



RECOMMENDATIONS

4.1 General Recommendations

RECOMMENDATION 1C: Create a funding pool for grants to support small agricultural businesses and social enterprises

CORRESPONDING LOCAL FOOD ACTION PLAN ACTION ITEM:

- > **C-6:** Revise zoning codes, related permit requirements and land use plans to support and encourage agricultural and food system uses as a viable option for community revitalization.

INTENT:

- > Permitting fees and public utility fees are often burdensome for small urban farms, urban agriculture facilities and green businesses which have very low operating budgets. These can be limiting factors for startups or growth of existing entities.

BARRIERS ADDRESSED:

- > **Regulatory Barrier R-5:** Limitations of green businesses and urban agriculture growth because of permitting fees and associated regulatory costs.
- > **Regulatory Barrier E-1:** Lack of public sector funding or financial support for green business and urban agriculture.

INDICATOR:

- > Increase in permits granted for related activities.
- > Increase in number of urban farms and agriculture facilities.

PARTNERSHIPS:

- > Internal partnership(s) within the Mayor's Office, City Council, and various City Departments.
- > Grant or funding program by partner entities.

STRATEGIES:

- > **Strategy 1C.01:** Provide mini-grants or offset permit fees for high tunnels, storage structures, and other related agricultural growing structures. This includes permits for on-site electrical, plumbing, irrigation, and other supportive work.

RECOMMENDATION 1D: Provide engineering assistance for urban farms and green businesses
CORRESPONDING LOCAL FOOD ACTION PLAN ACTION ITEM:
<ul style="list-style-type: none"> > C-6: Revise zoning codes, related permit requirements and land use plans to support and encourage agricultural and food system uses as a viable option for community revitalization > C-9: Connect new or growing small scale neighborhood food businesses to flexible financial and technical assistance options
INTENT:
<ul style="list-style-type: none"> > Stormwater BMP design plans are required by the State of Ohio EPA to be stamped by a Professional Engineer (PE). The cost to develop these plans and their associated fees are significant for the small urban farmer and may cause the project to stop altogether.
BARRIERS ADDRESSED:
<ul style="list-style-type: none"> > Practical Barrier P-6: Access to affordable and convenient water for irrigation, washing, and other needs > Economic Barrier E-1: Lack of public sector funding or financial support for green business and urban agriculture
INDICATOR:
<ul style="list-style-type: none"> > Quantity of successful urban farms.
PARTNERSHIPS:
<ul style="list-style-type: none"> > Internal partnership(s) between the Mayor's Office, City Council, and various City Departments. > OSU Extension, American Society of Civil Engineers (ASCE), American Society of Landscape Architects (ASLA), and/or the Franklin SWCD to provide free or reduced cost design services.
STRATEGIES:
<ul style="list-style-type: none"> > Strategy 1D.01: Create a partnership program with entities such as American Society of Landscape Architects (ASLA), American Society of Civil Engineers (ASCE), OSU, and/or the Franklin SWCD to provide free or reduced-cost design services.

RECOMMENDATIONS

4.1 General Recommendations

RECOMMENDATION 1E: Create new or modify existing program to provide, services, support and education to community gardeners citywide

CORRESPONDING LOCAL FOOD ACTION PLAN ACTION ITEM:

- > **C-9:** Connect new or growing small-scale neighborhood food businesses to flexible financial and technical assistance options.

INTENT:

- > Create a citywide program for urban farms and community gardens to receive soil preparation, seeds/plants.
- > Create a system to inventory community gardens.

BARRIERS ADDRESSED:

- > **Practical Barrier P-1:** Need for dialogue between public officials and elected leaders for urban agriculture and its benefits.
- > **Practical Barrier P-4:** Lack of tools, labor, or other basic resources.
- > **Economic Barrier E-1:** Lack of public sector funding or financial support for green business and urban agriculture.
- > **Economic Barrier E-4:** Urban farms and green businesses need additional support as creation methods.

INDICATOR:

- > Increased number of market gardens/community gardens.

PARTNERSHIPS:

- > OSU Extension.
- > Greater Columbus Growers Coalition.

STRATEGIES:

- > **Strategy 1D.01:** Contract with an entity such as OSU Extension to provide coordination, services, support, oversight, and education for community gardens in Columbus, similar to the Summer Sprouts program operated by OSU Extension in Cleveland.



Policy Model:

CLEVELAND SUMMER SPROUTS



EXTENSION



Cleveland Summer Sprouts is a support and resource program for community gardens in the City of Cleveland administered by OSU Extension and funded by the City of Cleveland Department of Community Development. The program provides soil testing, tilling, seeds, plants, hydrant access, and other resources to gardens enrolled in the program. Cleveland budgets about \$100,000 annually for the Summer Sprouts program.

The program also offers free workshops and conducts site visits to diagnose problems, provide expertise and inventory production space. This inventory and an annual renewal form allows the program to maintain an inventory of total garden area, production space, distribution, crops grown and other features. There are currently just under 200 community gardens enrolled in the program.

(Source: 2015 Summer Sprout Community Garden Report)



Policy Model:

CITY OF SAN FRANCISCO URBAN AG RESOURCE CENTERS



These Resource Centers are a monthly service provided by the San Francisco Recreation and Parks Department to City residents. The centers provide free gardening supplies such as compost and mulch, as well as free classes. The centers change locations throughout the City each month to better serve all residents.

The Recreation and Parks Department also manages a citywide Urban Agriculture program that provides physical resources, education opportunities, and "supports projects across city agencies and interagency cooperation, promotes urban agriculture policies and provides information."

(Source: <http://sfrecpark.org/park-improvements/urban-agriculture-program-citywide/urban-agriculture-resource-centers/>)



RECOMMENDATIONS

4.1 General Recommendations

RECOMMENDATION 1F: Increase availability and reduce cost of safe water for agricultural and green business use

CORRESPONDING LOCAL FOOD ACTION PLAN ACTION ITEM:

- > **C-6:** Revise zoning codes, related permit requirements and land use plans to support and encourage agricultural and food system uses as a viable option for community revitalization.

INTENT:

- > Support the supply of water for irrigation, washing, processing, and other activities with reduced cost and greater ease of access.
- > Reduce the financial burden of new taps which can exceed \$2,000 for construction and permitting.

BARRIERS ADDRESSED:

- > **Practical Barrier P-6:** Access to affordable and convenient water for irrigation, washing, and other needs.
- > **Regulatory Barrier R-5:** Limitations of green businesses and urban agriculture growth because of permitting fees and associated regulatory costs.

INDICATOR:

- > Increased number of water main taps or permits and/or groundwater well permits for urban agriculture and associated green businesses.

PARTNERSHIPS:

- > Internal partnership(s) between the Mayor's Office, City Council, and various City Departments.
- > Potential grant program by partner entities.
- > Ohio EPA, CMHA, others.

STRATEGIES:

- > **Strategy 1F.01:** Modify permit application to track urban agriculture and green business facilities. This should include a box to designate the project as an urban agriculture or green business and should require a brief description of the facility.
- > **Strategy 1F.02:** Create a funding program to offset initial infrastructure costs and ongoing water fees.
 - » For small farms and community gardens: Provide grants for up to 50% of initial tap fees, water line, meter, backflow preventer, and faucet. For potable use for irrigation, washing, processing, and other purposes, water meter should be configured to meter only potable water use and should not meter sewerage charges.
 - » For all urban farms and associated green businesses requiring water for irrigation: Provide grants for 50% of water usage fees and associated charges up to a predetermined total cost. The total outlay should be based on the size of the facility in total yield.
- > **Strategy 1F.03:** For large urban farm facilities (greater than 1/2 acre) which require significant water use for purposes of irrigation, encourage the installation of groundwater wells.
 - » Water quality testing should be performed prior to approval of any permanent well construction. If water drawn from test wells includes any heavy metals, pathogens, or other contaminants which pose a public health risk, the well construction should not be permitted.
 - » If desired, testing results for a well may be resubmitted at a different location or draw depth.
 - » Testing should comply with FSMA regulations.



Policy Model:

CITY OF DAYTON WATER INFRASTRUCTURE GRANTS



In 2014, the City of Dayton initiated a grant program which supports urban farms and community gardens through the installation of potable water infrastructure. The program consists of the following:

- \$500 grant annually (per site) for water usage fees.
- \$2,500 grant for initial infrastructure installation including tap fees, lateral lines, meters, and other infrastructure.

For most projects that have utilized the funding, the total costs of both annual water usage fees and initial infrastructure exceeds the available grant funding above. However, the program provides enough support for eligible projects to encourage project development and ongoing operations.



RECOMMENDATIONS

4.1 General Recommendations

RECOMMENDATION 1G: Identify potential sites for the creation of farmer's market/central food marketplaces in underserved neighborhoods

CORRESPONDING LOCAL FOOD ACTION PLAN ACTION ITEM:

- > **B-3:** Establish a formal farmers' market management collaborative serving the City of Columbus and Franklin County.
- > **C-8:** Develop central food marketplaces that reflect the culture and diversity of neighborhoods.

INTENT:

- > Expand the availability and accessibility of local, fresh foods.
- > Increase outlets for producers and growers to sell products.

BARRIERS ADDRESSED:

- > **Practical Barrier P-3:** Lack of available land and/or buildings for urban agriculture and green business activities.
- > **Economic Barrier E-3:** Lack of clear and effective communication between urban farmers/green business owners and financial resources.

INDICATOR:

- > Number of farmers markets/central food marketplaces.

PARTNERSHIPS:

- > OSU Extension.
- > Ohio Farmers Market Managers Network.
- > Columbus Metropolitan Library.
- > Social Enterprises.
- > Community facilities such as places of worship and social service facilities.
- > US Department of Agriculture's Agricultural Marketing Service (AMS).
- > North Market.
- > Franklin Park Conservatory.

STRATEGIES:

- > **Strategy 1G.01:** Utilizing site selection criteria, prioritize areas with greatest need for food access.
- > **Strategy 1G.02:** Work with community facilities to determine potential viability of incorporating local food sales/distribution in their operations.

RECOMMENDATION 1H: Create urban farm ‘edge’ improvement program

CORRESPONDING LOCAL FOOD ACTION PLAN ACTION ITEM:

- > **B-5:** Grow capacity and enhance viability of civic agriculture to allow more residents to grow food for themselves and their neighbors .
- > **C-6:** Revise zoning codes, related permit requirements, and land use plans to support and encourage agricultural and food system uses as a viable option for community revitalization.

INTENT:

- > Enhance the edges of urban farm facilities in order to enhance compatibility with neighborhood character.
- > Establish urban agriculture facilities as neighborhood amenities.

BARRIERS ADDRESSED:

- > **Practical Barrier P-4:** Lack of tools, labor, or other basic resources.
- > **Practical Barrier P-5:** Vandalism of urban agriculture facilities and theft of equipment.

INDICATOR:

- > Projects designed or constructed.

PARTNERSHIPS:

- > Columbus Foundation and other funding entities.
- > Greater Columbus Arts Council and other Arts Groups.
- > Neighborhood Design Center (for design assistance as needed).

STRATEGIES:

- > **Strategy 1H.01:** Establish City grant or outside Arts Grant program for specially designed gate and fence structures.

RECOMMENDATIONS

4.1 General Recommendations

RECOMMENDATION 1I: Utilize land use policies to support and incentivize local food network growth
CORRESPONDING LOCAL FOOD ACTION PLAN ACTION ITEM:
> B-6: Support grocery store and healthy food retail location and expansion in neighborhoods with low access.
INTENT:
> Utilize zoning mechanisms to incentivize access to local, healthy food in development projects.
BARRIERS ADDRESSED:
> Market Barrier M-2: Disconnection between urban agriculture/green businesses and other strong business sectors in Columbus.
> Market Barrier M-3: The local food supply chain is not strong or consistent enough to support expansive and sustained growth of the sector.
INDICATOR:
> Sales data from vendors.
> Measured increase in total local food sales.
PARTNERSHIPS:
> Ongoing partnership with OSU Extension as subject matter expert.
STRATEGIES:
> Strategy 1I.01: A policy memo that states the Economic Development Division should consider Green Businesses and the local food network in policies.
> Strategy 1I.02: A policy memo that states the Planning Division should consider Green Businesses and the local food network in planning reviews.



Policy Model: CITY OF NEW YORK FOOD RETAIL EXPANSION TO SUPPORT HEALTH PROGRAM (FRESH)

NYC



The Food Retail Expansion to Support Health (FRESH) program promotes the establishment and retention of neighborhood grocery stores in underserved communities by providing zoning and financial incentives to eligible grocery store operators and developers.

FRESH is a zoning incentive program adopted by the New York City Council in 2009 after the Housing, Economic and Infrastructure Planning division identified a shortage of supermarkets/grocery stores throughout the City.

The program provides incentives on a case-by-case basis to existing or new grocery stores within an eligible area that meet space requirements for perishable goods, fresh produce, and other food products.

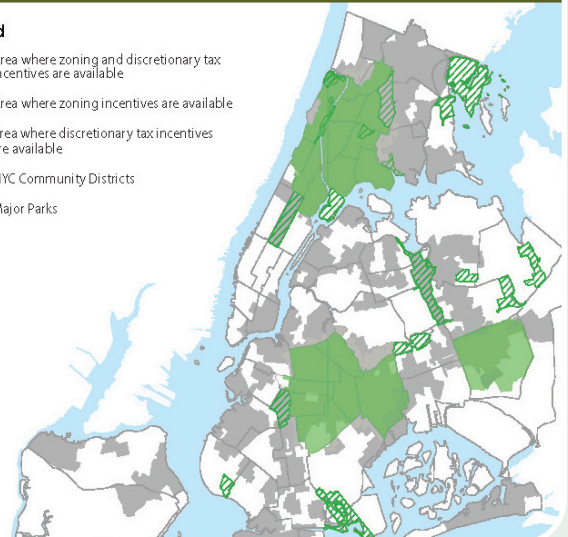
Zoning incentives include additional development rights, reduction in required parking, and allowing larger stores in light manufacturing districts. Financial incentives include tax abatement, tax exemption on construction materials, and building tax stabilization.

(Source: <http://www.nyc.gov/html/misc/html/2009/fresh.shtml> and FRESH Program Incentives Overview PDF)

FRESH Program Eligibility Areas

Legend

- Area where zoning and discretionary tax incentives are available
- Area where zoning incentives are available
- Area where discretionary tax incentives are available
- NYC Community Districts
- Major Parks



RECOMMENDATIONS

4.2 Building and Zoning Services



INTRODUCTION

An analysis of the City of Columbus Zoning Ordinance (“Zoning Code”) was performed to identify those regulations that either promote or discourage urban agriculture uses. To supplement this review, meetings were held with the project working group, planning and zoning staff, economic development staff, and health department staff.

BENCHMARKING

Several large cities have adopted ordinances to address urban agriculture land uses. We reviewed the urban agriculture ordinances adopted by the City of Cleveland, City of Chicago and the City of Detroit to provide benchmarks for an ordinance in the City of Columbus. The corresponding chart provides a comparison of the key provisions of these ordinances.

BENCHMARKING CONCLUSIONS

Establishing by-right urban agriculture uses where they are most desired will have the greatest impact on local food production, are most compatible with surrounding land uses, and will allow for a more deliberate and controlled expansion of urban agriculture uses in the City of Columbus. Further calibration is necessary to establish a set of regulations that achieve the desired outcomes for Columbus.



Policy Model:

CODE DIAGNOSTIC AND RECOMMENDATIONS

CODE DIAGNOSTIC SUMMARY

The following summarizes the review and analysis of the Zoning Code as it relates to urban agriculture.

- Urban agriculture may occur generally in residential zones subject to certain limitations specifically applicable to agriculture uses and certain other land use limitations generally applicable to any development in the city. Additional limitations may also be applicable depending on the type and intensity of use.
- Because the Columbus Code does not define Ag Uses, it is impossible to know exactly which uses are permitted. Some uses are prohibited under Ohio law. Therefore, it is important that the city clearly identify and define those uses that it intends to permit.
- The laws pertaining to urban agriculture uses are disjointed and spread across a number of codes and ordinances. This makes them cumbersome and difficult for a property owner seeking to use land in the city for such uses to know whether their intended use is compliant with all applicable regulations. While these barriers may be surmountable, they increase the cost of establishing and maintaining urban agriculture in the city, which likely reduces the incentive to establish these uses.

Generally, to improve the situation and encourage the desired outcomes, the City should adopt a clear, consistent, usable comprehensive set of urban agriculture land use regulations that can be applied city-wide in zoning districts identified as being appropriate for these uses.

graydonlanduse

TO: Matt Leasure, PLA, ASLA, AICP, LEED AP, MKSK, Project Manager
Justin Goodwin, AICP, MKSK

FROM: Sean Suder

DATE: August 9, 2016

RE: **Columbus, Ohio – Recommendations for Urban Agriculture Regulations**

We were tasked with reviewing existing ordinances and regulations relevant to the establishment of urban agriculture land uses in the City of Columbus, Ohio, and to provide implementable recommendations for the city's consideration.

We completed our review and analysis of the City of Columbus Zoning Ordinance ("Zoning Code") to identify those regulations that either promote or discourage urban agriculture uses. We prepared and submitted a memorandum to the consultant team on April 20, 2016, which outlines our observations and findings. MKSK, as lead consultant, has incorporated those observations and findings into the draft Green Business & Urban Agriculture Strategic Plan, which has been submitted to and reviewed by the city's project team.

We attended two separate workshops in the City of Columbus, including meetings with the project working group, planning and zoning staff, economic development staff, and health department staff. We have also attended and participated in regular consultant team working meetings.

Diagnostic Summary:

The following summarizes our review and analysis of the Zoning Code as it relates to urban agriculture.

- Urban agriculture may occur generally in residential zones subject to certain limitations specifically applicable to agriculture uses and certain other land use limitations generally applicable to any development in the city. Additional limitations may also be applicable depending on the type and intensity of use.
- Because the Columbus Code fails to define agriculture uses, it is impossible to know exactly which uses are contemplated. Those uses that are not contemplated are generally prohibited under Ohio law. Therefore, it is imperative that the city clearly identify and define those uses that it intends to permit.

1

graydonlanduse

RECOMMENDATIONS

4.2 Building and Zoning Services

ZONING CODE BENCHMARKING			
ZONING ITEM	CLEVELAND	DETROIT	CHICAGO
Agriculture Permitted in Residential Districts?	<ul style="list-style-type: none"> > Yes — § 337.02 (e); § 337.25; § 347.02 	<ul style="list-style-type: none"> > Yes — Article XII Subdivision H (discussed throughout section, but not directly addressed) > Urban Garden — Yes > Urban Farm — permitted by right in all but single family, two family and low density residential zones (need special permission); other residential zones okay 	<ul style="list-style-type: none"> > § 17-3-0207 — Urban Farms are prohibited in all Residential Areas (and certain business districts). > Community Gardens are permitted in residential areas
Lot Area	<ul style="list-style-type: none"> > Is contingent on the type of use, more area is needed if the owner has animals 	<ul style="list-style-type: none"> > Not Specified 	<ul style="list-style-type: none"> > § 17-9-0103.5 — Community Gardens shall not be larger than 25,000 square feet, except in POS (Parks and Open Space) districts. There is no size limits for Community Gardens in POS 1 (Regional or Community Parks) and POS 2 (Neighborhood, mini-and-play-lot parks) districts
Overlay	<ul style="list-style-type: none"> > (DRAFT) Chapter 336 A — Urban Agriculture Overlay (UAO) District 	<ul style="list-style-type: none"> > No 	<ul style="list-style-type: none"> > No
On-Site Sales	<ul style="list-style-type: none"> > § 336.03 — Occasional sales of items grown at site; market gardens, including sale of crops produced on the site 	<ul style="list-style-type: none"> > § 61-12-327 — On-site sales are permitted as an accessory use at farm stand on property 	<ul style="list-style-type: none"> > § 17-9-0103.5-D — On-site sales are limited to incidental sales of plants or produce on site
Cultivation	<ul style="list-style-type: none"> > Not Specified 	<ul style="list-style-type: none"> > § 61-12-329 — Cultivation must comply with additional setback requirements (see setback requirements above) 	<ul style="list-style-type: none"> > Not Specified

ZONING CODE BENCHMARKING			
ZONING ITEM	CLEVELAND	DETROIT	CHICAGO
Parking and Loading	<ul style="list-style-type: none"> > § 336.05(d) — Off-street parking shall be permitted only for those garden sites exceeding 15,000 square feet in lot area, such parking shall be limited in size to 10% of the garden site lot area and shall either be unpaved or surfaced with gravel or similar loose material or shall be paved with pervious paving material. 	<ul style="list-style-type: none"> > Not specified 	<ul style="list-style-type: none"> > Urban Farms require parking based on the number of employees (because they are a commercial establishment) > § 17-10-0207 — Parking regulations for commercial garden or greenhouse
Lot Coverage	<ul style="list-style-type: none"> > § 336.05(c) — The combined area of all building, excluding green houses and hoop houses, shall not exceed 15% of the garden site lot area 	<ul style="list-style-type: none"> > Not specified 	<ul style="list-style-type: none"> > § 17-9-0201-D — No accessory buildings may occupy more than 60% of the area of a required rear yard setback except: if lot has a width of 25 feet or less the building may have an area of up to 480 square feet, 60% coverage rule does not apply to accessory garage buildings in RM 5-RM 6.5 districts when the garage provides an enclosed facility for required off-street parking, accessory community garden buildings such as sheds, greenhouses, hoop houses or farm stands may have an area of up to 575 square feet.
Fencing	<ul style="list-style-type: none"> > § 366.05(g) — Fences shall not exceed six feet in height, shall be at least 50% open if they are over 4 feet, and shall be constructed of wood, chain link or ornamental metal. Fences for gardens over 15,000 square feet must be approved by City Planning Director prior to installation. 	<ul style="list-style-type: none"> > Not Specified 	<ul style="list-style-type: none"> > § 17-9-0103.3-C — Urban Farms, fencing and screening that is complementary to allowed activities and that is acceptable to the Department of Housing and Economic Development shall be allowed in lieu of requirements of 17-3-0304 and 17-5-0601.

RECOMMENDATIONS

4.2 Building and Zoning Services

ZONING CODE BENCHMARKING			
ZONING ITEM	CLEVELAND	DETROIT	CHICAGO
Animals	<ul style="list-style-type: none"> > § 336.04 — Chicken coops are a permitted accessory use > Health Code — § 205.04 anyone proposing to keep farm animals or bees on a property in the City of Cleveland shall apply for a two-year license with a payment set forth by the board > § 347.02 — Different restrictions for different types of animals 	<ul style="list-style-type: none"> > NO — § 61-12-326 > § 61-12-413 — Fish are allowed on urban farm through aquaponics and aqua culture 	<ul style="list-style-type: none"> > § 17-17-0104-H — Urban Farm, No. Only fruits and vegetables, unless raising fish indoors through aquaponics system. However, a zoning review and building permit is required in order to install structures or systems and a business license is required.
Beekeeping	<ul style="list-style-type: none"> > § 336.04 — Beehives are a permitted accessory use > Health Code — § 205.04 anyone proposing to keep farm animals or bees on a property in the City of Cleveland shall apply for a two-year license with a payment set forth by the board > § 347.02 — Regulations for beekeeping 	<ul style="list-style-type: none"> > Not specified 	<ul style="list-style-type: none"> > § 17-17-0270.7 — Yes, up to five bee hives can be kept as an accessory use, but they must be registered with the Illinois department of agriculture
Setbacks	<ul style="list-style-type: none"> > § 336.05(a) — Buildings shall be set back from property lines of a Residential District a minimum of 5 feet. 	<ul style="list-style-type: none"> > § 61-12-329 — Buildings and structures must comply with the accessory structure setback and height requirements in Article XIII, Division 1. For cultivation crop areas must be set back at least 5 feet from all property lines, orchards and small tree farms must be set back at least 15 feet from all property lines; greenhouses and hoop houses shall be set back at least 5 feet from the rear property line. 	<ul style="list-style-type: none"> > Not Specified

RECOMMENDATION 2A: Explicitly define and permit urban agriculture and related activities in zoning regulations

CORRESPONDING LOCAL FOOD ACTION PLAN ACTION ITEM:

- > **B-5:** Grow capacity and enhance viability of civic agriculture to allow more residents to grow food for themselves and their neighbors.
- > **C-6:** Revise zoning codes, related permit requirements, and land use plans to support and encourage agricultural and food system uses as a viable option for community revitalization.

INTENT:

- > Allow on-site processing facilities in commercial/industrial districts.
- > Clarify permitted uses and activities.
- > Minimize staff time required for responding to clarifying questions regarding various city codes.

BARRIERS ADDRESSED:

- > **Regulatory Barrier R-1:** Inconsistency and confusion in City regulatory processes.
- > **Regulatory Barrier R-2:** Lack of explicitness in code permission of urban agricultural and green business practices.
- > **Regulatory Barrier R-3:** Limitations within existing codes for urban agriculture and green business practices.

INDICATOR:

- > Quantity of processing facilities.
- > Number of jobs created.

PARTNERSHIPS:

- > Ongoing partnership with OSU Extension as subject matter expert.

STRATEGIES:

- > **Strategy 2A.01:** Update existing land use definitions to reflect terminology utilized by contemporary green business and urban agriculture practices.
- > **Strategy 2A.02:** Modify existing code language to explicitly define allowable land uses and practices.
- > **Strategy 2A.03:** Work with other City Departments to minimize practical or perceived conflicts between zoning code language and other city codes.

RECOMMENDATIONS

4.2 Building and Zoning Services

RECOMMENDATION 2B: Modify selected code requirements to enable expanded urban agricultural activities in residential districts

CORRESPONDING LOCAL FOOD ACTION PLAN ACTION ITEM:

- > **B-5:** Grow capacity and enhance viability of civic agriculture to allow more residents to grow food for themselves and their neighbors.
- > **C-6:** Revise zoning codes, related permit requirements, and land use plans to support and encourage agricultural and food system uses as a viable option for community revitalization.

INTENT:

- > Enable CSA sales and small farm stands in residentially zoned districts where appropriate.
- > Enable limited on-site processing in residentially zoned districts.

BARRIERS ADDRESSED:

- > **Regulatory Barrier R-1:** Inconsistency and confusion in City regulatory processes.
- > **Regulatory Barrier R-2:** Lack of explicitness in code permission of urban agricultural and green business practices.
- > **Regulatory Barrier R-3:** Limitations within existing codes for urban agriculture and green business practices.

INDICATOR:

- > Growth or expansion of small scale Community Supported Agriculture facilities (CSA's) in residential districts.

PARTNERSHIPS:

- > Ongoing partnership with OSU Extension as subject matter expert.

STRATEGIES:

- > **Strategy 2B.01:** Suggested modifications to:
 - » Section A: To permit sale of agricultural products from other farms, businesses, and facilities, omit the language "products raised on premises" and substitute "agricultural, food, and related products".
 - » Section A.1.: Alter the minimum lot area requirement for agricultural uses, including the operation of incidental vehicles and machinery and incidental sale and marketing of products raised on premises, from 5 acres to 1 acre. Additionally, Permit the 1 acre minimum to be attained by aggregating multiple lots in the same geographic area (within 1000') and are controlled by the same owner, controlling entity, or partnership.
 - » Section A.2.: Reduce the minimum distance required for a poultry or livestock building from a lot or a street line.
 - » Section B.1.: Alter the minimum lot area required for an on-site stable from 5 acres to 1 acre.

RECOMMENDATION 2C: Explore the creation of an overlay zoning district which permits expanded urban agricultural activities

CORRESPONDING LOCAL FOOD ACTION PLAN ACTION ITEM:

- > **B-5:** Grow capacity and enhance viability of civic agriculture to allow more residents to grow food for themselves and their neighbors.
- > **C-6:** Revise zoning codes, related permit requirements, and land use plans to support and encourage agricultural and food system uses as a viable option for community revitalization.

INTENT:

- > Allow on-site CSA sales and small farm stands in residentially zoned districts.
- > Allow limited on-site processing in residentially zoned districts.

BARRIERS ADDRESSED:

- > **Regulatory Barrier R-1:** Inconsistency and confusion in City regulatory processes.
- > **Regulatory Barrier R-2:** Lack of explicitness in code permission of urban agricultural and green business practices.
- > **Regulatory Barrier R-3:** Limitations within existing codes for urban agriculture and green business practices.

INDICATOR:

- > Growth or expansion of small scale Community Supported Agriculture facilities (CSA's) and related green businesses in residential districts.

PARTNERSHIPS:

- > Ongoing partnership with OSU Extension as subject matter expert.

STRATEGIES:

- > **Strategy 2B.01:** Research the viability and explore the creation an urban agriculture overlay zoning district. This district would accommodate larger scale outdoor production across a wider area; namely for lots and sites greater than five acres in area or at a neighborhood scale. For example, an urban agriculture overlay district may be appropriate for:
 - » A property or group of contiguous properties with an aggregate total area of five or more acres.
 - » A defined area of non-contiguous properties with an aggregate total area of five or more acres.
 - » A defined neighborhood, planning district, or area commission within the city.
- > Within the specific overlay district, the type of urban agriculture uses by underlying use district should be specifically determined and tailored to that particular overlay district based on the land use conditions and preferences of the people within the district. This calibration would take place through the legislative rezoning process, and the district would ultimately overlay the existing zoning district on the zone map.
- > **Strategy 2B.02:** Permit on-site sales and pickup in residential districts for CSA's and other entities.
- > **Strategy 2B.03:** Permit larger or expanded footprint agricultural growing structures.
- > **Strategy 2B.04:** Permit larger or expanded footprint agriculture accessory structures including storage and processing buildings.

RECOMMENDATIONS

4.3 Economic Development

FOOD PRODUCTION AND DISTRIBUTION MODEL

The primary focus of this plan is to provide a framework for a greater proliferation of urban farming to promote community development and food security. Declining employment in critical food-related sectors could be detrimental to the region's overall food production ecosystem and strategic positioning of the region.

Agriculture in itself is not a major employer in the region. According to data from the Ohio Department of Jobs and Family Services, in 2014 there were only around 350 agriculture jobs in Franklin County, a county with nearly 600,000 private sector jobs. Though, agriculture-specific jobs make up only a small component of the broader food industry in a region, there is a much broader segment that consists of food production, manufacturing, preparation, distribution, and sales. These sub-clusters are part of the larger manufacturing, shipping, distribution, and warehousing industry, which have a more significant impact on the Franklin County economy — making up approximately 13 percent of total employment. These jobs tend to be higher paying and require less than a college degree making them critical for promoting upward economic mobility for lower-income households and sustaining a strong middle class.

LOCATION QUOTIENT

The following pages discuss employment in industries related to urban agriculture and green business. Location quotient factors are used to describe employment and compare Columbus employment to peer cities.

Location quotients (LQs) are an effective way to identify a region's relative strengths and weaknesses by industry sector. LQs compare the proportion of a region's employment by industry sector to nationwide averages—in this case, employment in the Columbus metropolitan statistical area (MSA) compared to the national average for MSAs (remote/rural areas are excluded since they would skew the data). For example, LQs of 1.0 show that the region has the same proportion of employment as the nation, while LQs greater than 1.0 show a relatively higher proportion of employment.

A change in LQ over time shows whether a region has gained or lost a competitive advantage in a given industry. Losing a competitive advantage does not necessarily have a negative impact on the local economy since some jobs may have been replaced by higher-paying or more productive industries (in terms of GDP).

Though food distribution and manufacturing jobs make up less than two percent of total employment in Franklin County, it is concerning that employment in these sub-clusters have dropped by almost 27 percent since 2000 and the region continues losing its competitive advantage in these sectors.

FIGURE 4.3.01 LOCAL FOOD SYSTEM JOBS IN FRANKLIN COUNTY, 2014

Source: Ohio Department of Jobs and Family Services)



FIGURE 4.3.02 TRANSPORTATION & LOGISTICS INDUSTRY LQ IN REGIONAL CITIES, 2010–2013

MSA	2000	2013
Louisville	1.73	2.00
Chicago	1.25	1.56
Columbus	1.00	1.40
Des Moines	0.88	1.39
Indianapolis	1.60	1.31
Minneapolis	1.60	1.20
Cincinnati	1.32	1.11
Detroit	1.04	1.09
St. Louis	0.99	1.02
Cleveland	0.92	0.81
Pittsburgh	1.62	0.62

TRANSPORTATION AND DISTRIBUTION INDUSTRY

Compared to many of its peer cities in the Midwest, the Columbus MSA has experienced very strong growth in the Transportation and Logistics industry, which includes all air, rail, bus, and freight transportation services and other support industries. Since 2000, employment in these sectors has increased by 25 percent with its location quotient increasing from 1.0 in 2000 to 1.40 in 2013 (Cluster Mapping, U.S. EDA, Harvard Business School). This growth is a testament to the region's efforts in promoting the multimodal shipping industry making it one of the premiere shipping hubs in the Midwest. Given the increasingly robust shipping and logistics infrastructure in the region, this should create opportunities to establish more export-based durable goods manufacturing.

FIGURE 4.3.03 LOCAL LOGISTICAL SERVICES INDUSTRY LQ IN REGIONAL CITIES, 2010-2013

MSA	2000	2013
Louisville	1.17	2.33
Indianapolis	1.81	1.64
Pittsburgh	1.33	1.25
Chicago	1.22	1.20
Cincinnati	1.42	1.14
Columbus	1.21	0.98
St. Louis	1.24	0.98
Minneapolis	1.08	0.95
Des Moines	1.60	0.90
Detroit	0.94	0.79
Cleveland	0.87	0.72

FIGURE 4.3.04 FOOD MANUFACTURING INDUSTRY LQ IN REGIONAL CITIES, 2010-2013

MSA	2000	2013
Louisville	1.22	1.42
Cincinnati	1.38	1.39
Des Moines	1.40	1.16
Indianapolis	0.93	1.03
Chicago	1.06	0.97
Columbus	1.00	0.89
St. Louis	1.00	0.89
Minneapolis	0.96	0.86
Cleveland	0.57	0.75
Pittsburgh	0.75	0.40
Detroit	0.27	0.35

FOOD DISTRIBUTION

Understanding the health of the local food distribution market requires several tiers of analysis, since it is tied to a number of overlapping industries, including local shipping and distribution and wholesale trade. Despite gaining a significant competitive advantage in the broader export-driven transportation and multimodal logistics industry, the Columbus region has actually lost ground in local logistical services industries, which includes local transportation of freight and goods and local storage facilities. Since 2000, employment in these industries have declined by around 17 percent with its location quotient decreasing from 1.21 to 0.98 (Cluster Mapping, U.S. EDA, Harvard Business School).

In addition to job losses in the local logistics industry, Franklin County has experienced significant decreases in employment in Grocery and Other Product Wholesale Trade (NAICS 424400), contrary to statewide trends (Data from the Ohio Department of Jobs and Family Services. Data for this industry sector was unavailable for the Columbus MSA). From 2000 to 2014, employment in this sector decreased by nearly 33 percent with a loss of around 1,200 jobs in Franklin County, while statewide employment in this sector decreased by only four percent. This sector was hit especially hard during the Great Recession and has yet to recover.

FOOD MANUFACTURING

The location quotient for food manufacturing in the Columbus MSA compared to its peer Midwestern cities shows the loss of its competitive advantage in this sector from 2000 to 2013.

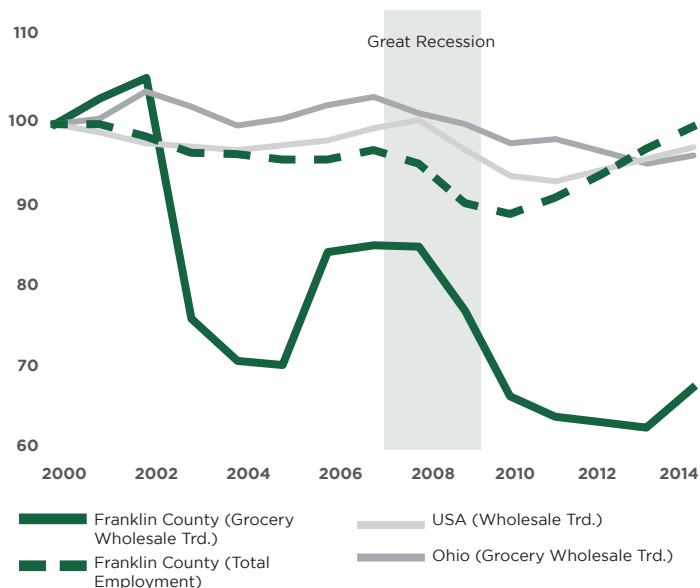
Addressing declining manufacturing employment is a regional and nationwide challenge. Since 2000, manufacturing employment has decreased by 33 percent in Franklin County, which is relatively consistent with statewide and national trends; however, the food manufacturing sector has been somewhat resilient during this period of decline with employment only decreasing by three percent nationwide. Food manufacturing employment in Franklin County, on the other hand, has decreased by almost 33 percent since 2000, far outpacing the national and statewide average (4.0 percent decline). Since the Great Recession, food manufacturing employment in Ohio has increased, while this type of employment in Franklin County has continued to decrease.

RECOMMENDATIONS

4.3 Economic Development

FIGURE 4.3.05 RELATIVE CHANGE IN GROCERY AND OTHER PRODUCT WHOLESALE TRADE, 2000-2014
Index: 2000 = 100

Source: Bureau of Labor Statistics, Ohio Department of Jobs and Family Services



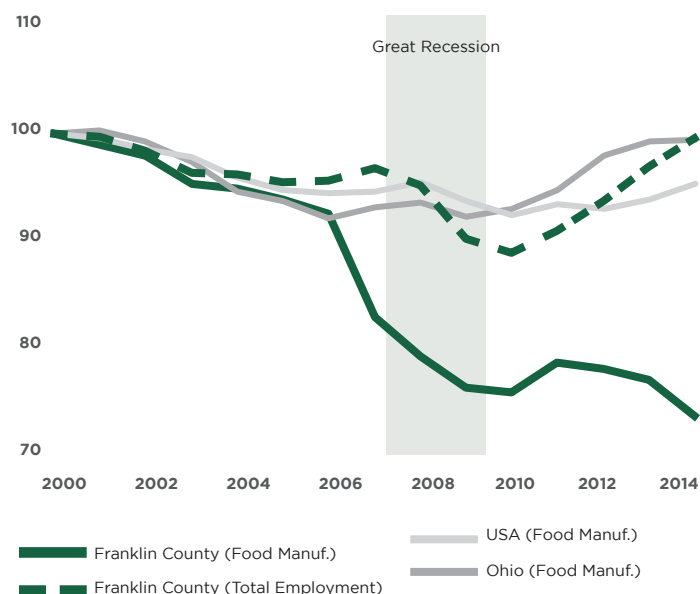
ALIGNMENT WITH REGIONAL, STATE, AND NATIONAL ECONOMIC DEVELOPMENT INITIATIVES

Columbus 2020, tasked with promoting economic growth across the 11-county region, has identified manufacturing (specially, food and beverage manufacturing) and logistics as key industry sectors that will drive regional growth over the next decade. Given the resources devoted to promoting these industries, especially related to workforce development, business assistance, and site selection, it is critical that the city of Columbus align its economic development goals with these regional initiatives.

In order to create a robust local and regional food system with the greatest economic development potential for jobs and productivity, the City of Columbus must promote farming and food production on a community level and provide the necessary resources (and interventions) to grow the distribution and manufacturing industries. Given scarce resources on the local level, sound and impactful economic development policy must rely upon regional, state, and federal resources in concert with private sector collaboration to best alleviate the barriers to economic growth. Other regions focused on growing their food production, manufacturing and distribution industries have generally built a framework of goals and strategies related to the following five ways to support green business growth.

FIGURE 4.3.06 RELATIVE CHANGE IN FOOD MANUFACTURING EMPLOYMENT, 2000-2014
Index: 2000 = 100

Source: Bureau of Labor Statistics, Ohio Department of Jobs and Family Services



TOP 5 WAYS TO SUPPORT GREEN BUSINESS GROWTH

1. Help small businesses currently operating in the region (with high growth potential) expand operations and access new markets
2. Assist with workforce development/job training through existing public and private educational and institutional networks
3. Promote technology and innovation in food-related businesses
4. Develop regional economic development networks between city, county, and regional organizations and business community
5. Attract, retain, and expand businesses through comprehensive site selection assistance for both vacant land and under-utilized industrial properties

PROCESSING AND DISTRIBUTION FACILITIES

Local Food Supply Connector

To expand and accelerate the capacity to meet the growing demand for local food, shared-use processing facilities and Food Hubs focused on the aggregation of produce, meat and dairy products for distribution to direct and wholesale markets should be developed in the City of Columbus. A “Local Food Supply Connector” could direct private entrepreneurs, social enterprise collaboratives and local food economic development partners to resources and city zoning requirements as infrastructure planning and site selection is in the early stage development. With a centralized clearinghouse at the city, the connector could also inform and refer projects to one another to build a more effective communication network. The scale of proposed infrastructure projects and the diversity of market channels they plan to serve can also inform the city to suggest potentially targeted neighborhoods ideal for site selection.

Successful processing and distribution centers in under-served neighborhoods would have significant economic impacts to the City through job creation, new business development and tax revenue.

Current Models

Currently non-profit, private and social enterprise organizations such as ECDI's Food Fort, The Commissary, AZOTI and Great River Organic (GRO) have been implementing promising models to develop food entrepreneurship capacity for the preparation, processing, aggregation and distribution of local/regional foods. These projects and facilities support farmers and food entrepreneurs to develop new product lines and distribute fresh and value-added foods to direct and wholesale demand markets. Grocery stores, restaurants, corporate and institutional buyers have worked with these champions to increase their sourcing of local food through innovative CSA models, new wholesale distribution systems and the development of market ready product lines from private entrepreneurs selling into groceries and restaurants.

Understanding models and emerging trends in food sector development is crucial for the development of a “Local Food Supply Connector” position at the city. With a thorough understanding of the conditions, opportunities and obstacles of infrastructure development and targeted site selection to situate these facilities in under-served neighborhoods will have significant economic impacts to the City through job creation, new business development and tax revenue.

FIGURE 4.3.07 JOB SECTOR IMPACTS OF LOCAL FOOD DISTRIBUTION CENTERS



RECOMMENDATIONS

4.3 Economic Development

RECOMMENDATION 3A: Leverage existing regional and state resources dedicated to promoting food manufacturing and production industry clusters, including workforce development, business assistance and strategic partnerships.

CORRESPONDING LOCAL FOOD ACTION PLAN ACTION ITEM:

- > **C-4:** Advocate for food system workers in local and regional workforce development efforts.
- > **C-7:** Repurpose vacant commercial, industrial and residential sites for local food system uses.

INTENT:

- > Form public-private partnerships.
- > Coordinate workforce development resources and develop curriculum specific to food-related industries.
- > Identify and address needs of existing food-related businesses (production, manufacturing, and distribution) within the context of the greater Columbus regional economy.
- > Improve access to existing incentive programs for business expansion and retention for food-related businesses.
- > Link Green Business and Urban Agriculture Site Selection Criteria tool with Columbus 2020 site selection services.

BARRIERS ADDRESSED:

- > **Economic Barrier E-1:** Lack of public sector funding or financial support for green business and urban agriculture.
- > **Economic Barrier E-3:** Lack of clear and effective communication between urban farmers/green business owners and financial resources.
- > **Economic Barrier E-4:** Urban farms and green businesses need additional support as job creation methods.
- > **Economic Barrier E-5:** With proper support, there is potential for Columbus to become a technological leader in urban agriculture

INDICATOR:

- > Job growth in selected food-related industry sectors in city of Columbus.
- > Public/private investment in food-related industry sectors in city of Columbus.
- > Total food-related industry leads processed by Columbus 2020.
- > Number of new businesses starting and graduating from food business incubators.

PARTNERSHIPS:

- > Columbus 2020, Mid-Ohio Development Exchange (MODE).
- > Ohio Department of Job and Family Services.
- > JobsOhio.
- > ECDI.
- > The Commissary.
- > Great River Organics.
- > Other social enterprise developers.

STRATEGIES:

- > **Strategy 3A.01:** Work with funding entities to develop a program specific to green business and urban agriculture ventures.
- > **Strategy 3A.02:** Utilize green business and urban agriculture concierge to link green business to private capital.
- > **Strategy 3A.03:** Consult and collaborate with the city/county local food team on emerging ventures and their needs.
- > **Strategy 3A.04:** Assess realistic demand by local institutions for local food, using outreach surveys or the Columbus-based Azoti platform for demand-planning.
- > **Strategy 3A.05:** Link both institutional buyers and area farmers with processors and distributors to complete the supply chain.
- > **Strategy 3A.06:** Identify city, county and development organizations' opportunities to secure funding for collaborative projects for the development of processing and distribution infrastructure.



Partnership Opportunity: **JOBSONIO**



JobsOhio is a “private non-profit corporation designed to drive job creation and new capital investment in Ohio through business attraction, retention, and expansion efforts.” JobsOhio identified the Food Processing Industry as a key growth sector, given that agribusiness is the largest industry sector in the state.

Several sites in northwest Ohio have been selected as “shovel-ready” for food and beverage industry facilities by a private consulting firm. The City of Columbus could work with JobsOhio to identify suitable sites in the City for smaller-scale or locally focused facilities.

(Source: <http://jobs-ohio.com/> and <http://shovelreadysites.info/>)



Policy Model: **MINNEAPOLIS, MINNESOTA HOMEGROWN BUSINESS DEVELOPMENT CENTER**



Part of the Homegrown Minneapolis initiative is an economic development program through the Community Planning & Economic Development (CPED) in partnership with the Metropolitan Consortium of Community Developers (MCCD). The Center provides technical assistance and loans up to \$10,000 at a 2% interest rate to local food businesses within Minneapolis that are engaged in the processing, manufacturing, distribution and marketing of local food products.

The accompanying *Guide to Starting a Local Food Business in Minneapolis* outlines the loan application requirements and other important considerations for local food businesses.

(Source: *Guide to Starting a Local Food Business in Minneapolis*)



Guide to Starting a Local Food Business in Minneapolis

RECOMMENDATIONS

4.3 Economic Development

RECOMMENDATION 3B: Investigate the creation of a local-food finance district to serve clusters of local-food-oriented businesses, to generate revenue that benefits businesses within the district

CORRESPONDING LOCAL FOOD ACTION PLAN ACTION ITEM:

- > **C-1:** Create a food processing and distribution collaborative.
- > **C-6:** Revise zoning codes, related permit requirements and land use plans to support and encourage agricultural and food system uses as a viable option for community revitalization.
- > **C-7:** Repurpose vacant commercial, industrial and residential sites for local food system uses.

INTENT:

- > Prominently put local-food jobs and businesses on the economic-development agenda.
- > Ensure that sites are available – especially in areas where people need jobs – for food-processing startups and existing businesses seeking to expand.
- > Facilitate clustering of food-related local businesses in a way that encourages collaboration among different parts of the food supply chain.
- > Coordinate aggregation opportunities between buyers and sellers.
- > Coordinate opportunities to reuse waste.

BARRIERS ADDRESSED:

- > **Practical Barrier P-3:** Lack of available land and/or buildings for urban agriculture and green business activities.
- > **Economic Barrier E-1:** Lack of Public Sector Funding or Financial Support for Green Business and Urban Agriculture.
- > **Economic Barrier E-2:** Need for Access to Private Capital or Financial Support for Green Business and Urban Agriculture.
- > **Economic Barrier E-5:** With Proper Support, there is Potential for Columbus to Become a Technological Leader in Urban Agriculture.

INDICATOR:

- > Revenue generated by and reinvested in the district.
- > Number of appropriate sites identified.
- > Number of local-food businesses created or expanded.
- > Revenue and jobs data for new food businesses.

PARTNERSHIPS:

- > Joint City and County Local Food Team.
- > Council of Development Finance Agencies.
- > Local food and green business advocacy groups.
- > Mid-Ohio Regional Planning Commission.
- > OSU Extension.

STRATEGIES:

- > **Strategy 3B.01:** Collaborate with Columbus economic development staff on the district structure and tax and financing options.
- > **Strategy 3B.02:** Identify criteria to select sites.
- > **Strategy 3B.03:** Utilize current GIS mapping procedures for cluster identification and site selection.
- > **Strategy 3B.04:** Determine what city or state code adjustments would be needed to create a special finance district.
- > **Strategy 3B.05:** Collaborate with Joint City/County Food Team to link businesses and entrepreneurs to the sites.



Policy Model:

DETROIT EASTERN MARKET



Before it closed more than 50 years ago, the Central Market in downtown Columbus was more than a farmers market. Many longtime market vendors had expanded into food distribution and other ventures, dozens of which were centered in the area around the marketplace – produce distribution, restaurants, meat processing and wholesaling, and more.

In Detroit, about a mile northeast of downtown, the historic Detroit Eastern Market District maintains the vibrancy of old. In addition to several of the large sheds of the public marketplace – some dating to the founding in 1891 and on the National Register of Historic Places – the 43-acre district is the largest public market complex in the United States. It has maintained and expanded its role as a major hub for the wholesale food processing and distribution industry, with some 150 restaurants, flower shops, food-supply businesses, distributors, processors and even a slaughterhouse in the blocks surrounding the public market sheds.

The city of Detroit divested itself of direct management of the market in 2006 and turned it over to the non-profit, public/private Eastern Market Corporation, which has managed the district's expansion, new development projects, establishment of shared-use food-incubator kitchens, and collaboration with the growing urban-farm movement in the city.

RECOMMENDATIONS

4.3 Economic Development

RECOMMENDATION 3C: Attract new or increase capacity of existing large scale growers and food producers through economic development mechanisms and partnerships

CORRESPONDING LOCAL FOOD ACTION PLAN ACTION ITEM:

- > **B-6:** Support grocery store and healthy food retail location and expansion in neighborhoods with low access.
- > **C-1:** Create a food processing and distribution collaborative.
- > **C-7:** Repurpose vacant commercial, industrial and residential sites for local food system uses.

INTENT:

- > Attract large scale urban growers such as FarmedHere and other national entities to expand growth of green business and urban growers.
- > Support the intent of institutional buyers to shift to local food sourcing through significant expansion of existing food production facilities or attraction of new facilities.
- > Promote the development of similar projects by local entrepreneurs.
- > Support established kitchen incubators and Food Hubs to serve urban agricultural producers through training, value-added processing assistance and local marketing initiatives.

BARRIERS ADDRESSED:

- > **Economic Barrier E-1:** Lack of public sector funding or financial support for green business and urban agriculture.
- > **Economic Barrier E-4:** Urban farms and green businesses need additional support as job creation methods.

INDICATOR:

- > Jobs Created/Retained.
- > Economic impact generated, measured in dollars.
- > Number of hydroponic or other producers growing food at wholesale scales.
- > Number of vacant commercial, industrial and residential sites repurposed for local food system uses.
- > Increased acreage in production in city neighborhoods used as social and natural capital impacts for social enterprise investment from philanthropy and public funders.

PARTNERSHIPS:

- > Proposed OSU urban agriculture research and Extension facility.
- > Economic Development organizations such as Columbus 2020.
- > Ohio Ecological Food and Farm Association.

STRATEGIES:

- > **Strategy 3C.01:** Create linkage between institutional buyers and local growers.
- > **Strategy 3C.02:** Promote Farm to School Program in Columbus City Schools and coordinate efforts with other school districts.
- > **Strategy 3C.03:** Promote Columbus as a place that welcomes and encourages food-system entrepreneurs.
- > **Strategy 3C.04:** Manage referral system to connect new urban agricultural producers to educational resources and training partners.



Partnership Opportunity: **ECDI**



ECDI (Economic & Community Development Institute) is a 501c3 non-profit SBA lender based in Columbus that offers small business micro loans ranging from \$500 to \$350,000.

The City of Columbus could potentially partner with ECDI to administer grants or loans for urban agriculture and green businesses.

(Source: <https://www.ecdi.org/>)



Policy Model: **OH! CHIPS**



OH! Burgers was founded in 2012 as a food truck selling burgers and handmade chips. The company produced chips at ECDI's Food Fort during the week and sold out of the food truck on weekends.

Chips became the main focus and the business moved to a 4,500 SF building in Franklinton with assistance from an ECDI loan.

(Source: <http://www.bizjournals.com/columbus/print-edition/2014/10/10/oh-goes-from-burgers-to-potato-chip-plant.html>)



RECOMMENDATIONS

4.3 Economic Development

RECOMMENDATION 3D: Support and assist regional efforts to increase the amount of local food purchased by school districts, higher education, hospitals, and other anchor institutions.

CORRESPONDING LOCAL FOOD ACTION PLAN ACTION ITEM:

- > **B-4:** Expand consumer access to local healthy food purchasing incentives.
- > **B-8:** Public and institutional buyers adopt and implement food purchasing policies to support increased purchases of healthy and local food.

INTENT:

- > Generate consistent and high quality supply of local food at enough volume to support large-scale purchasing by large institutions.
- > Develop a supply chain to facilitate the transition of raw local farms products to the goods needed by institutions.
- > Utilize institutional buying as a mechanism to grow the local food market, eventually reaching the point that it is integral to the broader food supply chain.
- > Identify institutional buyers such as health institutions to invest in urban agriculture and farm incubation in targeted low-income neighborhoods.

BARRIERS ADDRESSED:

- > **Economic Barrier E-1:** Lack of public sector funding or financial support for green business and urban agricultures.
- > **Economic Barrier E-4:** Urban farms and green businesses need additional support as job creation methods.
- > **Market Barrier M-3:** The local food supply chain is not strong or consistent enough to support expansive and sustained growth of the sector.

INDICATOR:

- > Increase in percentage of local products in the total food purchases of Columbus City Schools, The Ohio State University, Nationwide Childrens Hospital and other such institutions.
- > Goal established for local school districts, colleges & universities, and hospitals to spend at least 20 percent of their food-service dollars on local products by 2025.

PARTNERSHIPS:

- > Franklin County, Mid-Ohio Regional Planning Commission, Central Ohio Regional Food Council.
- > OSU Extension/Ohio Farm to School Program.
- > Large institutions including The Ohio State University, Columbus State Community College, Columbus City Schools, the Columbus Metropolitan Library, major hospital networks, and other institutions.
- > Community Development Entities, non-profit social enterprises, and other entities.
- > Existing or emerging farmers, processors, and other entities.
- > Neighborhood development organizations focused on healthy food access initiatives.

STRATEGIES:

- > **Strategy 3D.01:** Create linkage between institutional buyers and local growers.
- > **Strategy 3D.02:** Promote Farm to School Program in Columbus City Schools.
- > **Strategy 3D.03:** Promote local-food sourcing in Columbus hospitals and other institutions.
- > **Strategy 3D.04:** Develop a model to help local schools and institutions find sources for local food.



Partnership Opportunity:
**OSU 40% LOCAL
COMMITTMENT**



Ohio State University intends to purchase a minimum of 40 percent of its food locally (in state) by 2025

OSU's system-wide food purchasing is now around \$39 million per year, meaning up to \$16 million in local food purchases by 2025.

Other entities in Columbus are following a similar objective to OSU. For example, Columbus City Schools will launch a pilot project to provide meals grown locally beginning in January of 2017.



Policy Model:
**CITY OF CLEVELAND
LOCAL AND SUSTAINABLE
PURCHASING PREFERENCE**



The Local and Sustainable Purchasing Ordinance is a component of the Local Producer, Local Food Purchaser, & Sustainable Business Program. The City has definitions for "Local Producer" and "Sustainable Business" and applicants must be certified through the Office of Equal Opportunity.

Producers and Sustainable Businesses can each receive a two percent bid preference on competitively bid contracts or two evaluation credits for professional service contracts, which can be combined for a total of four percent in bid discounts.

Companies that buy 20 percent or more of their contract from regional growers can receive a two percent bid discount on competitively bid contracts or two evaluation credits for professional service contracts from the City.

(Source: Local Producer, Local Food Purchaser, & Sustainable Business Program Brochure)



RECOMMENDATIONS

4.3 Economic Development

RECOMMENDATION 3E: Support the expansion and creation of local-food processing and distribution businesses and food hubs that provide markets for central ohio farmers and simplify purchases by institutions and grocers

CORRESPONDING LOCAL FOOD ACTION PLAN ACTION ITEM:

- > **C-1:** Create a food processing and distribution collaborative.
- > **C-2:** Establish a local food supply connector position to expand market opportunities for local food.
- > **C-7:** Re-purpose vacant commercial, industrial and residential sites for local food system uses.

INTENT:

- > Encourage more urban farmers to grow produce aggregated and distributed by a Food Hub.
- > Encourage season extension among urban growers and urban farm incubators.
- > Create new distribution and delivery systems for urban and regional farm operators to aggregate under one Food Hub brand.
- > Provide Food Hub management and operations jobs, designing new workforce programs for beginning farmers to learn in Food Hubs, farm incubators and placements with urban farmers.
- > Connect to value-added processors and kitchen incubator operators to expand product lines for distribution.

BARRIERS ADDRESSED:

- > **Practical Barrier P-3:** Lack of available land and/or buildings for urban agriculture and green business activities.
- > **Economic Barrier E-1:** Lack of public sector funding or financial support for green business and urban agriculture.
- > **Economic Barrier E-5:** With proper support, there is potential for Columbus to become a technological leader in urban agriculture.
- > **Market Barrier M-3:** The local food supply chain is not strong or consistent enough to support expansive and sustained growth of the sector.

INDICATOR:

- > Increase in profitability of Central Ohio farms.
- > Increased activity and revenues of urban businesses that serve farmers and large-scale buyers.
- > Number of new business starts and job creations within targeted neighborhoods.

PARTNERSHIPS:

- > Franklin County.
- > Columbus City Schools.
- > MORPC.
- > OSU Extension.
- > JobsOhio.

STRATEGIES:

- > **Strategy 3E.01:** Encourage the creation of privately owned Food Hubs owned and operated by urban growers and rural farm operators.
- > **Strategy 3E.02:** Encourage the creation of social enterprise Food Hubs managed by non-profits or multi-stakeholder cooperatives.
- > **Strategy 3E.03:** Encourage the creation of private or publicly held shared-use processing and distribution businesses.
- > **Strategy 3E.04:** Encourage the creation of a food innovation center/facility.



Partnership Opportunity: **AZOTI**

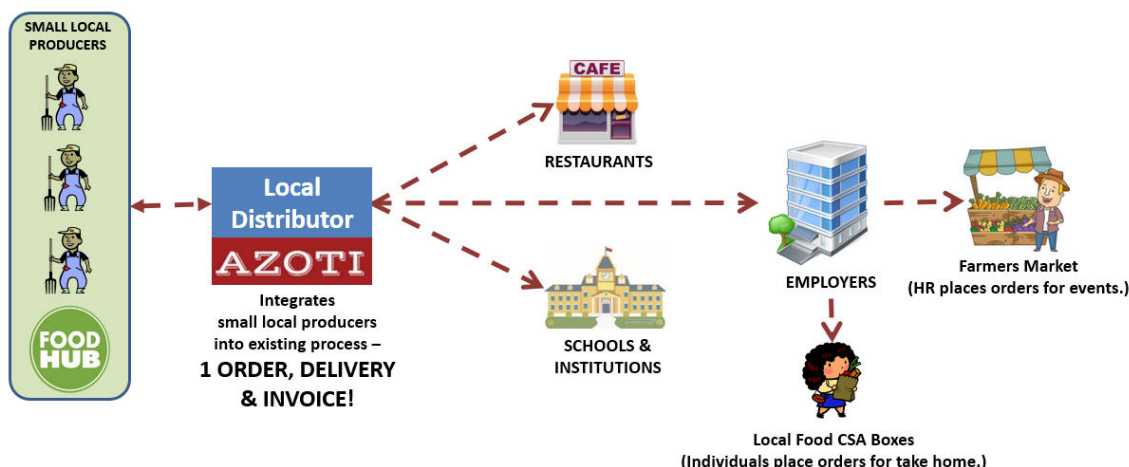


Azoti's goal is to provide value to everyone in the food supply chain so large buyers can justify local food price premiums

Azoti primarily works as software-as-a-service platform consisting of two key modules: Demand Planning and Just in Time Inventory. These modules allow large buyers and distributors to engage with small local producers through a centralized ordering and delivery platform. Azoti focuses on the marketing benefits of local food

"Local food has always been about value for health, soil and the environment; now you can get that same value plus tangible ROI for all participants"

(Source: <http://azoti.com/>)



**Step 1: Demand & Crop Planning
(Off-Season)**

Small local producers can "grow for a market"

**Step 2: Just-in-Time Inventory
(Harvest Time)**

Increase order accuracy while reducing waste

RECOMMENDATIONS

4.3 Economic Development

RECOMMENDATION 3F: Encourage the development and use of technology for processing, distributing, and urban agriculture practices

CORRESPONDING LOCAL FOOD ACTION PLAN ACTION ITEM:

- > **B-5:** Grow capacity and enhance viability of civic agriculture to allow more residents to grow food for themselves and their neighbors.
- > **B-7:** Identify and implement mobile retail strategies that bring healthy, affordable local food to residents.
- > **C-7:** Repurpose vacant commercial, industrial and residential sites for local food system uses.

INTENT:

- > Increase scope and implementation speed of urban farms & agricultural facilities.
- > Create a culture for innovation and development of new technology for urban agriculture applications — eg. solar glass, indoor growing, new food processing technologies, etc.

BARRIERS ADDRESSED:

- > **Practical Barrier P-4:** Lack of tools, labor, or other basic resources.
- > **Economic Barrier E-1:** Lack of public sector funding or financial support for green business and urban agriculture.
- > **Economic Barrier E-5:** With proper support, there is potential for Columbus to become a technological leader in urban agriculture.
- > **Market Barrier M-3:** The local food supply chain is not strong or consistent enough to support expansive and sustained growth of the sector.

INDICATOR:

- > New startup businesses or products created.
- > Increase in productivity of urban farms.
- > New urban farm startups.
- > Emergence of more initiatives like Azoti that use online platforms for local-food marketing and logistics
- > Increase in availability of locally sourced foods in direct retail markets: farmers markets, neighborhood farm stands and community supported agriculture subscriptions.
- > Increase in locally-sourced food to wholesale buyers.

PARTNERSHIPS:

- > The Ohio State University.
- > Columbus State Community College.
- > Finance Fund (Healthy Food for Ohio).
- > USDA or HUD programs.
- > Farm Credit Mid-America.
- > Ohio Farm Services Agency.

STRATEGIES:

- > **Strategy 3F.01:** Create a fund or partnership network for technology development in the urban agriculture and local food supply chain.
- > **Strategy 3F.02:** Develop a partnership with OSU College of Food, Agricultural, and Environmental Sciences, which will be developing a national center for urban agriculture and food security, and utilize the resulting relationship to promote adoption of emerging technologies related to food production, processing, marketing, and public policy.
- > **Strategy 3F.03:** Develop a partnership with OSU Extension's new Urban Extension Center (opening in 2018) in order to provide technology transfer education for city residents, businesses, and entrepreneurs.
- > **Strategy 3F.04:** Incorporate a food access component for the Smart Cities Transportation research/demonstration project in order to connect food-insecure populations with access to healthy food options and retailers.



Partnership Opportunity:

OSU WATERMAN FARM



**THE OHIO STATE
UNIVERSITY**

COLLEGE OF FOOD, AGRICULTURAL,
AND ENVIRONMENTAL SCIENCES

The Ohio State University is planning a new Center For Food Security And Urban Agriculture and a new urban Extension center for Franklin County. Both facilities are to be located in the City of Columbus on OSU Waterman Farm (at Lane Avenue and Kenny Road).

The two projects represent a coordinated and comprehensive research and extension approach to addressing food insecurity challenges and strategies, including urban agriculture

These projects provide an unparalleled opportunity for the city to collaborate with a major research institution on food security and urban agriculture



RECOMMENDATIONS

4.3 Economic Development

RECOMMENDATION 3G: Encourage local businesses to commit to Columbus grown and sourced products

CORRESPONDING LOCAL FOOD ACTION PLAN ACTION ITEM:

- > **C-3:** Create a consumer-producer-buyer verification process to support increased and authenticated healthy local food purchasing.

INTENT:

- > Create a program which highlights local food businesses including the processing/production location and supply chain of the product.
- > Give local-food a higher profile and a clear City endorsement.

BARRIERS ADDRESSED:

- > **Market Barrier M-1:** Lack of clarity for most appropriate products for Central Ohio market.
- > **Market Barrier M-3:** The local food supply chain is not strong or consistent enough to support expansive and sustained growth of the sector.
- > **Market Barrier M-4:** Need to expand opportunities for Community Supported Agriculture (CSA's) & farm stands/markets.

INDICATOR:

- > Growth of local food supply and distribution.
- > Increased customer awareness of local food availability through marketing campaigns

PARTNERSHIPS:

- > Columbus City Schools.
- > Mid-Ohio Regional Planning Commission.
- > OSU Extension.
- > Columbus Restaurant Associations.
- > Ohio Ecological Food and Farm Association.
- > Edible Columbus.
- > Ohio Department of Agriculture and Ohio Proud program.

STRATEGIES:

- > **Strategy 3G.01:** Work with city/county Local Food Committee to specifically define 'Columbus Grown' or 'Columbus Sourced'.
- > **Strategy 3G.02:** Incorporate these definitions and standards into the City's Green Spot program.
- > **Strategy 3G.03:** Encourage City departments and entities to source a minimum of 25% of food purchases from Columbus and Central Ohio growers and producers.
- > **Strategy 3G.04:** Create marketing messages/campaigns to promote these actions as they are implemented. Incorporate key marketing messages into existing City and partner marketing materials.



Partnership Opportunity: **COLUMBUS GREEN SPOT**



Households, businesses or community organizations participating in the Greenspot Program by the Office Of Environmental Stewardship pledge to make 5 mandatory commitments to be more green. Advantages for businesses include marketing material and exposure through the website and social media.

This year's GreenSpotLight award winners, small, medium, and large organizations recognized by the mayor were Nationwide Insurance, The Market Italian Village, and Coldwater Consulting, LLC.

(Source: <https://columbus.gov/GreenSpot/>)



Policy Model: **30 MILE MEAL**



The 30 Mile Meal is a local food branding program for farmers, specialty food producers, markets, food events, and independently-owned eateries and bars featuring locally sourced menus. There are a series of guiding principles for participants to follow to be included in the program, focused on building the local food system and economy.

The 30 Mile Meal Project is a collaboration of the ACCVB, the Appalachian Center for Economic Networks (ACEnet) and 140+ local food partners.

(Source: <http://athensohio.com/category/30-mile-meal/>)



RECOMMENDATIONS

4.3 Economic Development

RECOMMENDATION 3H: Recapture food waste as economic opportunity

CORRESPONDING LOCAL FOOD ACTION PLAN ACTION ITEM:

- > **D-3:** Recommend changes to policies, zoning and health codes that support and encourage food waste recovery and diversion.
- > **D-4:** Provide training, tools, and economic incentives for new and existing food businesses to develop, adopt and implement food-waste prevention plans.
- > **D-5:** Build support for food waste recovery infrastructure among local leaders and large-scale food waste generators.

INTENT:

- > Reduce the amount of food waste sent to landfills.
- > Incentivize the re-use of food waste to create green businesses.
- > Find ways to process excess and unsold food.

BARRIERS ADDRESSED:

- > **Regulatory Barrier R-3:** Limitations within existing codes for urban agriculture and green business practices.
- > **Regulatory Barrier R-6:** Limitations of composting practices by regulatory codes, processes, and enforcement.

INDICATOR:

- > Measured increase in the amount of diverted food waste.
- > Number of businesses that have adopted waste-reduction plans.
- > Number of anaerobic digesters or other organics-diversion facilities or businesses established.

PARTNERSHIPS:

- > Proposed OSU urban agriculture research facility.
- > SWACO.
- > Mid-Ohio Regional Planning Commission.
- > Ohio EPA.
- > Private waste-diversion companies/consultants (Resource 100, Good Land, Econopia).

STRATEGIES:

- > **Strategy 3H.01:** Incorporate food-waste reduction standards into the Green Spot program.
- > **Strategy 3H.02:** Widely share the recommendations report of MORPC's 2015 Organics Diversion Subcommittee.
- > **Strategy 3H.03:** Assist developers of food-waste projects, such as Econopia's proposed anaerobic digester at DNO Produce, with siting and regulatory hurdles.
- > **Strategy 3H.04:** Investigate options such as portable, small-scale food-waste digesters made by Impact Bioenergy in Seattle.



Policy Model:

COMPOST COLUMBUS



Compost Columbus is a small business that offers curbside food scrap and other organic waste pickup. The waste is composted and returned to the subscriber several times throughout the year. They also provide services to small businesses and residences, bakeries, breweries, markets, and schools.



Policy Model:

CURBSIDE ORGANICS COLLECTION PILOT



Curbside Organics is a municipal composting program through the Austin Resource Recovery. Food waste and other organic waste is picked up weekly and transported to a local composting company.

The program began in 2013 and currently has 14,000 participating households. The City plans to expand the composting program to the entire City over a 5 year period as part of its goal to reduce waste sent to landfills 90% by 2040. Austin Resource Recovery also offers a home composting rebate program and has education materials.

(Source: <http://austintexas.gov/austincomposts> and <https://www.texasenvironment.org/austins-plans-for-citywide-composting-program-take-shape/>)

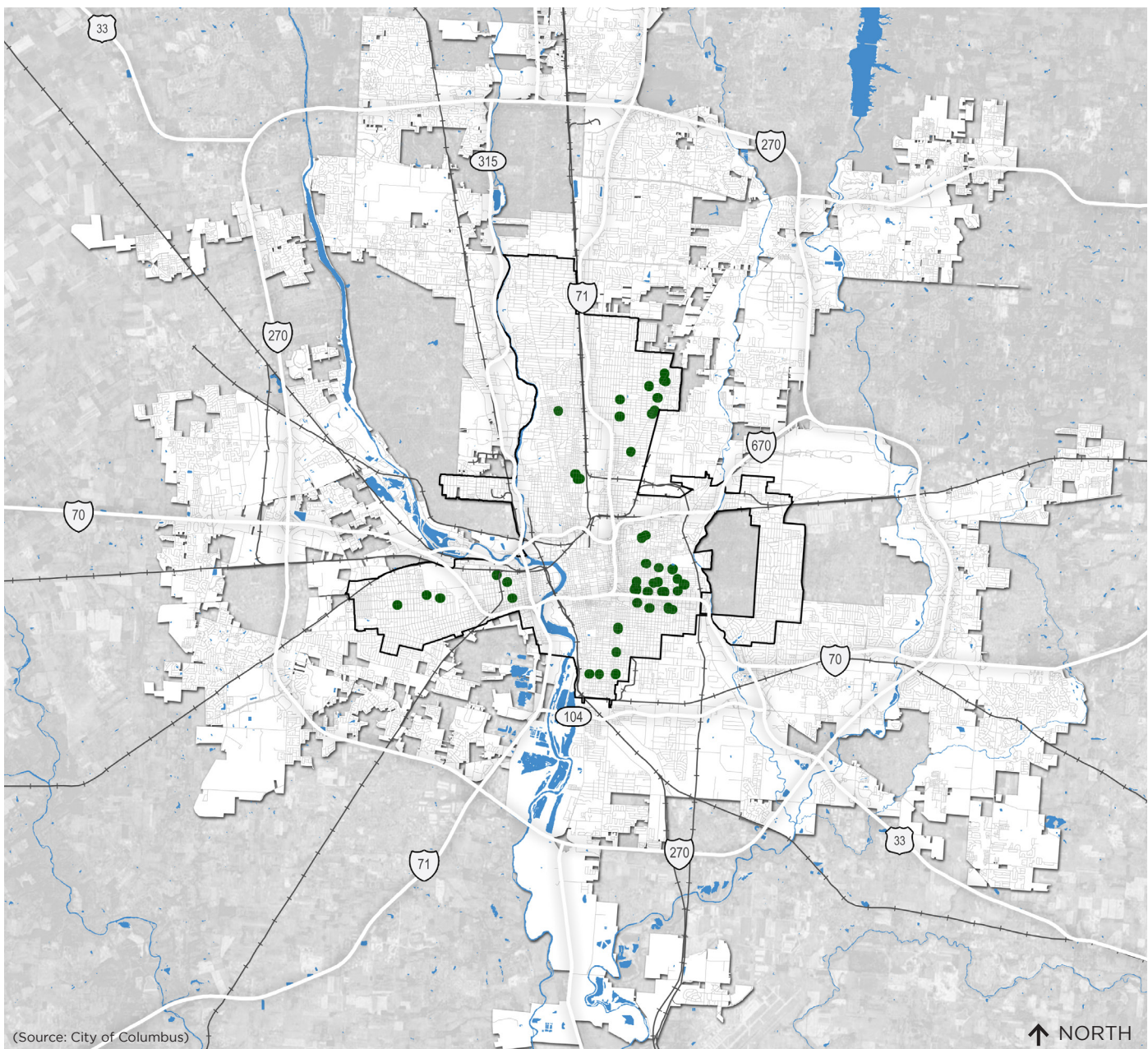


RECOMMENDATIONS

4.4 Land Redevelopment

The Land Redevelopment Division plays an important role in the potential of urban agriculture in distressed neighborhoods. The office is already providing a significant number of vacant lots for urban agricultural activities and will continue to be a supportive entity in urban agricultural practices.

FIGURE 4.4.01 CITY OF COLUMBUS LAND BANK COMMUNITY GARDENS



RECOMMENDATION 4A: Provide fertility and contaminant testing for soils of land bank properties in gardens and farms on city land and bank property

CORRESPONDING LOCAL FOOD ACTION PLAN ACTION ITEM:

- > **C-7:** Repurpose vacant commercial, industrial and residential sites for local food system uses.

INTENT:

- > Determine fertility of soil for growing crops and if any soil amendments are required.
- > Prevent health or public health issues caused by contaminated soils.

BARRIERS ADDRESSED:

- > **Practical Barrier P-7:** Uncertainty of soil quality for growers and for suppliers.
- > **Regulatory Barrier R-1:** Inconsistency and confusion in city regulatory processes.

INDICATOR:

- > Quantity of soil tests.
- > Soil test results.
- > Number of “garden ready” parcels.

PARTNERSHIPS:

- > OSU Extension.

STRATEGIES:

- > **Strategy 4A.01:** Develop policy which requires soil testing of fertility and various hazardous contaminants for land bank properties based on prior land use history of the property.
- > **Strategy 4A.02:** Develop policy for potential remediation of hazardous soil conditions on land bank properties. This should include standards for appropriate levels of remediation.
- > **Strategy 4A.03:** Develop policy for remediation of soils, or use of raised beds, in areas where soils are found to lack proper nutrients.

RECOMMENDATIONS

4.4 Land Redevelopment

RECOMMENDATION 4B: Extend land tenure for city land bank properties appropriate for long-term urban agricultural production

CORRESPONDING LOCAL FOOD ACTION PLAN ACTION ITEM:

- > **C-7:** Repurpose vacant commercial, industrial and residential sites for local food system uses.

INTENT:

- > Support economic viability and production logistics of urban farms.

BARRIERS ADDRESSED:

- > **Practical Barrier P-3:** Lack of available land and/or buildings for urban agriculture and green business activities.
- > **Market Barrier M-3:** The local food supply chain is not strong or consistent enough to support expansive and sustained growth of the sector.

INDICATOR:

- > Long term, stabilized use of vacant or abandoned lots for agricultural production.
- > Increase in leasing for agricultural production.
- > Average tenure of a license agreement.

PARTNERSHIPS:

- > Urban Agriculture advocacy groups.
- > OSU Extension.

STRATEGIES:

- > **Strategy 4B.01:** Determine which land bank properties are appropriate for extended land tenure. This should be based on site selection considerations, localized market conditions, successful completion of first year lease, and other considerations.
- > **Strategy 4B.02:** Develop policy for extended land tenure which permits use of land bank properties for urban agriculture activities for at least 5 years.
- > **Strategy 4B.03:** Determine viability of sale or indefinite land tenure of land bank properties for urban agricultural activities.
- > **Strategy 4B.04:** Modify application process to distinguish between established and first year gardens to allow for longer license agreements and tenure.



Policy Model:

CITY OF MINNEAPOLIS COMMUNITY GARDEN, MARKET GARDEN AND URBAN FARM POLICY



Minneapolis recently updated the policy for community gardens on Land Bank lots to increase access to land for food production. The goals were:

- Extend lease terms for City-owned parcels to greater than one year, with a preferred minimum of five years;
- Allow commercial growers to lease or purchase City-owned parcels, with the understanding that community gardeners would have priority access; and
- Expand the total number of City-owned lots available for urban agricultural lease or sale.

(Source: *Community Garden, Market Garden and Urban Farm Policy PDF*)

On November 20, 2015, the Minneapolis City Council adopted the City of Minneapolis Community Garden, Market Garden and Urban Farm Policy to: a) extend execution of leases of up to five years for gardens on parcels determined to be undevelopable; b) provide criteria for determining a parcel's eligibility for lease or sale as a garden space to commercial growers and community gardeners with priority access; c) expand the City-owned lots available for gardens with an initial 43 additional lots; and d) define garden lease standards for fees, insurance and security deposits.

Garden	Total Annual Fee	Administrative Fee	Lease Fee	Security Deposit	Liability Insurance Coverage
Community Garden	\$51	\$50	\$1	\$0	\$1 million
Market Garden or Urban Farm	\$200	\$50	\$150	\$0	\$2 million

For City-owned vacant land to be considered for lease as a community garden, market garden or an urban farm, it must meet one of the following criteria:

Description ¹	Comments	Lease Term ²
Category A	Properties with conditions that pose marketing challenges (i.e. north/south facing lots, on high vehicular traffic corridors, adjacent to identified problem properties, etc.).	1 Year
Category B	Properties slated for Multifamily Housing or Business Development projects that are NOT needed for site assemblage OR being actively marketed for redevelopment OR subject to a pending sale OR have exclusive development rights.	1 Year
Category C	Undersized Properties that are 4,000 square feet or less and not adjacent to a city-owned property.	3 Years ³
Category D	Undevelopable Properties with issues, including lack of public utilities, challenging public utilities (e.g., cross sewer connection), challenging soils, challenging topography, irregularly shaped or has less than a 35 foot frontage and no alley access.	5 Years ³

RECOMMENDATIONS

4.4 Land Redevelopment

RECOMMENDATION 4C: Support or enable private land trusts to hold land for urban agriculture activities.

CORRESPONDING LOCAL FOOD ACTION PLAN ACTION ITEM:

- > **C-7:** Repurpose vacant commercial, industrial and residential sites for local food system uses.

INTENT:

- > Create mechanisms for urban land to be preserved for urban agricultural activities.

BARRIERS ADDRESSED:

- > **Practical Barrier P-3:** Lack of available land and/or buildings for urban agriculture and green business activities.
- > **Market Barrier M-3:** The local food supply chain is not strong or consistent enough to support expansive and sustained growth of the sector.

INDICATOR:

- > Long term, stabilized use of vacant or abandoned lots for agricultural production.
- > Increase in leasing for agricultural production.
- > Average tenure of urban farms and community gardens.

PARTNERSHIPS:

- > Land Trusts.
- > OSU Extension.

STRATEGIES:

- > **Strategy 4C.01:** Partner with land trusts to preserve City owned land for urban agriculture.



Policy Model:

PORTLAND, OREGON

OREGON SUSTAINABLE AGRICULTURE LAND TRUST



Oregon Sustainable Agriculture Land Trust (OSALT) is a 501c3 non-profit dedicated to preserving sustainable agriculture in Oregon for education and research. They currently hold 7 properties in trust including community gardens within Portland city limits, and manage over 20 community gardens and farms. The organization is staffed completely by volunteers and acts as an umbrella that “provides land, management processes and non-profit status to local communities.” Several programs are offered through non-profit partnerships, such as the Urban Farm Collective, which manages urban garden sites in Portland.

(Source: <http://www.osalt.org/> , <http://urbanfarmcollective.com/>)



RECOMMENDATIONS

4.4 Land Redevelopment

RECOMMENDATION 4D: Create vacant land/building re-use pattern book for target neighborhoods

CORRESPONDING LOCAL FOOD ACTION PLAN ACTION ITEM:

- > **C-7:** Re-purpose vacant commercial, industrial and residential sites for local food system uses.

INTENT:

- > Create a pattern book document for public use with guidelines for vacant land and structure re-use.
- > Examples include Reimaging Cleveland resource guide, City of Chicago Large Lots Activation Guide, City of Baltimore Green Pattern Book, City of Philadelphia Grounded in Philly, City of Detroit Working with Lots Field Guide.

BARRIERS ADDRESSED:

- > **Practical Barrier P-1:** Need for dialogue between public officials and elected leaders for urban agriculture and its benefits.
- > **Practical Barrier P-2:** Need for public dialogue for urban agriculture and local food systems and their potential benefits.
- > **Market Barrier M-3:** The local food supply chain is not strong or consistent enough to support expansive and sustained growth of the sector.

MECHANISM:

- > Grant program for residents to implement strategies.

INDICATOR:

- > Increased use of vacant or abandoned lots and buildings for agricultural production or processing.

PARTNERSHIPS:

- > Proposed OSU urban agriculture research facility.
- > Neighborhood Design Center.

STRATEGIES:

- > **Strategy 4D.01:** Advance the work of this plan into a pattern book for various neighborhoods, lot types, contexts, and urban agriculture/green business facilities.



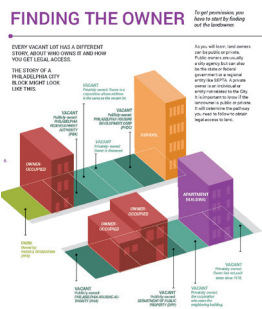
Policy Model:

GROUNDING IN PHILLY VACANT LAND TOOLKIT



Grounded in Philly is a reference guide for Philadelphia residents created by the Garden Justice Legal Initiative. It provides a step-by-step framework to gain access to land for the re-use of vacant lots to gardens or farms. The document provides resources and guidance for navigating legal and policy aspects of gaining access to land. The companion Grounded in Philly web mapping tool combines vacant land from public and private organizations, and has information such as square footage, ownership, known use, and zoning district. It also has information about the pathways to acquisition and allows users to add usage information, photos and organize community groups around the lot.

(Source: <http://groundedinphilly.org/>)



Policy Model:

CITY OF DETROIT WORKING WITH LOTS FIELD GUIDE



Working with Lots Field Guide is an online tool created by the Detroit Future City for residents to search for vacant lot re-use strategies based on criteria such as maintenance requirements, cost, experience, and stormwater treatment capability. Re-Use strategies can also be filtered by type of vacant lot and special condition, such as single, double, corner and commercial. Each strategy has a printable lot design package that outlines site preparation requirements, tool and material needs, and a step-by-step installation process. It also has a contractor package with technical site plans for construction. DFC offers mini-grant program for residents to implement the strategies in the Field Guide.

(Source: dfc-lots.com)

SORT BY
Name Cost Upkeep Experience Stormwater



COST \$50 to \$1,000	PEOPLE Volunteer
UPKEEP Low	EXPERIENCE Beginner
STORMWATER	SUN/SHADE



COST \$5,500+	PEOPLE Volunteer + Professional
UPKEEP High	EXPERIENCE Advanced
STORMWATER	SUN/SHADE

RECOMMENDATIONS

4.5 Neighborhoods

The Department of Neighborhoods will play a key role in the engagement of area commissions and guide the way Green Businesses and Urban Agriculture facilities physically and culturally interact with neighborhoods throughout the City. The neighborhood liaisons will facilitate dialogue between communities and the City to establish specific expectations for the appearance, function, and components of Green Business and Urban Agriculture facilities in each neighborhood.

RECOMMENDATION 5A: Work with civic associations and area commissions to foster dialogue regarding urban agriculture considerations

CORRESPONDING LOCAL FOOD ACTION PLAN ACTION ITEM:

- > **B-5:** Grow capacity and enhance viability of civic agriculture to allow more residents to grow food for themselves and their neighbors.
- > **C-6:** Revise zoning codes, related permit requirements and land use plans to support and encourage agricultural and food system uses as a viable option for community revitalization.

INTENT:

- > Clarify neighborhood expectations of aesthetics and uses.

BARRIERS ADDRESSED:

- > **Practical Barrier P-1:** Need for dialogue between public officials and elected leaders for urban agriculture and its benefits.
- > **Practical Barrier P-2:** Need for public dialogue for urban agriculture and local food systems and their potential benefits.
- > **Practical Barrier P-5:** Vandalism of urban agriculture facilities and theft of equipment.

INDICATOR:

- > Meetings held with urban agricultural activities on the agenda.

PARTNERSHIPS:

- > Local Matters.
- > OSU Extension.
- > City/County Local Food Team.
- > Greater Columbus Growers Coalition.

STRATEGIES:

- > **Strategy 5A.01:** Create presentation for Area Commissions and Civic Associations regarding the types of urban agriculture facilities. Through ongoing dialogue, determine local expectations for appearance, maintenance, community support, and engagement.
- > **Strategy 5A.02:** Assign role to Local Food Team.

RECOMMENDATION 5B: Establish expectations for neighborhood aesthetic and urban design compatibility

CORRESPONDING LOCAL FOOD ACTION PLAN ACTION ITEM:

- > **B-5:** Grow capacity and enhance viability of civic agriculture to allow more residents to grow food for themselves and their neighbors.
- > **C-6:** Revise zoning codes, related permit requirements and land use plans to support and encourage agricultural and food system uses as a viable option for community revitalization.

INTENT:

- > Provide expectations for general look and aesthetic quality of urban agriculture facilities.

BARRIERS ADDRESSED:

- > **Practical Barrier P-5:** Vandalism of urban agriculture facilities and theft of equipment.

INDICATOR:

- > Creation of an urban design guidelines document.

PARTNERSHIPS:

- > OSU Extension.
- > Neighborhood Design Center.
- > Greater Columbus Growers Coalition.

STRATEGIES:

- > **Strategy 5B.01:** Work with urban farmers and neighborhood leaders to develop design guidelines for urban farm and community garden facilities.

RECOMMENDATIONS

4.5 Neighborhoods

RECOMMENDATION 5C: Create partnership opportunities for returning citizens and immigrant populations to engage in urban agriculture

CORRESPONDING LOCAL FOOD ACTION PLAN ACTION ITEM:

- > **B-10:** Engage those most impacted by health disparities including low income, African American, Hispanic, New American, and other underrepresented communities in developing and implementing culturally appropriate food assistance, education, nutrition, gardening and cooking programs.

INTENT:

- > Increase entrepreneurial and employment opportunities for underserved residents in target neighborhoods.
- > Increase availability of fresh local food in target neighborhoods.
- > Increase production of local food.

BARRIERS ADDRESSED:

- > **Regulatory Barrier R-7:** Lack of a clear process for neighborhood/community review and engagement.
- > **Market Barrier M-3:** The local food supply chain is not strong or consistent enough to support expansive and sustained growth of the sector.

INDICATOR:

- > Decrease in unemployment in target neighborhoods.
- > Number of farms and gardens operated by immigrant groups.
- > Amount of sales and number of markets established by immigrants and immigrant groups.

PARTNERSHIPS:

- > Immigrant organizations.
- > OSU Extension.
- > Local Matters.
- > Greater Columbus Growers Coalition.

STRATEGIES:

- > **Strategy 5C.01:** Explore potential opportunities for incorporating urban agriculture activities in social service programs.
- > **Strategy 5C.02:** Work with existing green businesses and urban farmers to determine needs for seasonal and/or short term labor and other resources.
- > **Strategy 5C.03:** Develop new culturally-appropriate community gardening opportunities in neighborhoods with significant refugee populations.



Policy Model:

RECOVERY PARK FARMS



Recovery Park Farms is a planned, for-profit social-enterprise greenhouse development on 60 acres, 35 of which are owned by the Land Bank. Recovery Park is expected to employ 120 people after three years.

The farm's mission is to employ those who typically struggle to find employment, such as returning citizens and veterans.

The company must demolish all blighted buildings within it's first year to receive an annual lease rate of \$105 per acre from the City.

(Source: <http://detroit.curbed.com/2015/10/26/9907634/15-million-slated-for-detroits-recovery-park> , <http://www.detroitmi.gov/News/ArticleID/522/-15M-Recovery-Park-project-to-transform-22-block-area-of-blighted-property-into-urban-agriculture-enterprise#prettyPhoto>)



Policy Model:

CITY OF CLEVELAND REFUGEE RESPONSE



The Refugee Response is a non-profit organization leasing space at the Ohio City Farm that helps refugees adapt and become self-sufficient. The Refugee Empowerment Agriculture Program enables refugees to generate income through employment on the urban farm and also provides training and education. Crops are sold to local restaurants and a CSA program.

(Source: <http://therefugeeresponse.org/our-work/reap>)



RECOMMENDATIONS

4.6 Public Utilities

Public Utilities play a major role in the day-to-day practices of green businesses and urban agricultural facilities. The use of potable water for irrigation, washing, and drinking is key for operations. Sanitary sewers are fundamentally critical for food processing facilities and have special design and maintenance considerations. Additionally, stormwater management facilities serve a key role in regional water-quality considerations as well as on-site design considerations.

A core goal of many green businesses and urban agricultural practices is to protect and enhance the urban environment. This is a shared goal with many of the City of Columbus water and stormwater infrastructure policies. The following recommendations build on these shared goals in order to further the missions of all entities.

RECOMMENDATION 6A: Adapt or create stormwater Best Management Practices (BMP's) specific to urban agriculture & green business facilities

CORRESPONDING LOCAL FOOD ACTION PLAN ACTION ITEM:

- > **C-6:** Revise zoning codes, related permit requirements, and land use plans to support and encourage agricultural and food system uses as a viable option for community revitalization.

INTENT:

- > Reduce stormwater infrastructure cost and installation burden on urban agriculture facilities.

BARRIERS ADDRESSED:

- > **Regulatory Barrier R-1:** Inconsistency and confusion in city regulatory processes.
- > **Regulatory Barrier R-5:** Limitations of green businesses and urban agriculture growth because of permitting fees and associated regulatory costs.

INDICATOR:

- > Number of approved permits for urban agriculture facilities.

PARTNERSHIPS:

- > Internal partnership(s) between the Mayor's Office, City Council, and various City Departments.
- > Research partnership with OSU Extension or other entity to examine the effects of urban agriculture facilities on stormwater quality and quantity control.

STRATEGIES:

- > **Strategy 6A.01:** Develop testing program with existing urban agricultural facilities and/or research partners to determine levels of water runoff and quality in urban agriculture facilities.
- > **Strategy 6A.02:** Work with a research partner to develop or approve a stormwater BMP that is compatible with urban farms & associated facilities. This BMP may function integrally with growing practices and enhance both the function of the facility and the water quality of the facility beyond typical BMP's required for other facilities.
- > **Strategy 6A.03:** Modify threshold for required stormwater BMP facility for impervious surfaces from 2000 SF to 6000 SF. This will enable most small scale urban agriculture facilities which include hoop house or high tunnel structures to be constructed without an on-site stormwater BMP and associated engineering plan.
- > **Strategy 6A.04:** For properties where stormwater storage and distribution is used for irrigation on non-edible plants or plant parts, omit requirement for installation of an associated on-site stormwater management BMP for small urban agriculture growing structure(s) that are less than 10,000 SF in total roof area and have a pervious floor surface (greenhouses, high tunnels, and hoop houses).
- > **Strategy 6A.05:** Incorporate requirements specific to urban agriculture facilities in the forthcoming update of the City of Columbus Stormwater Design Manual.



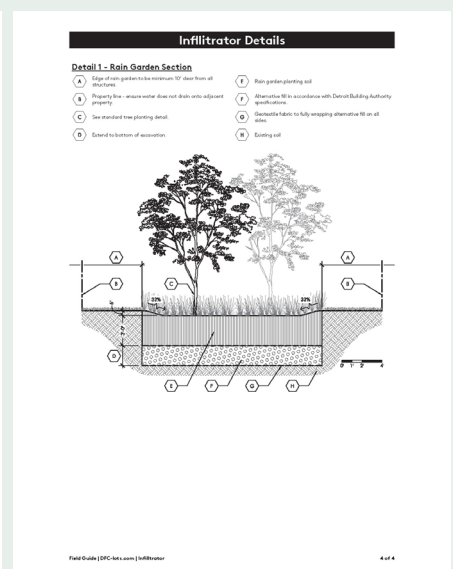
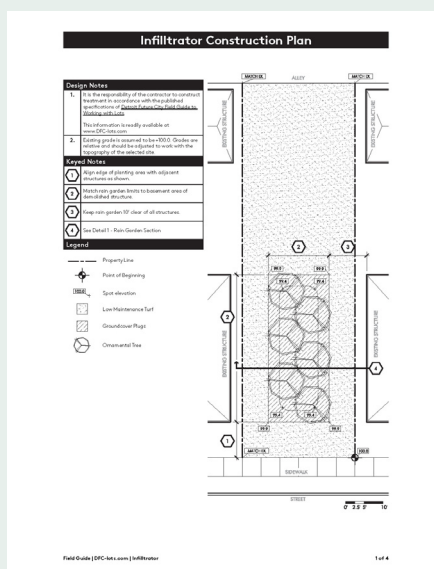
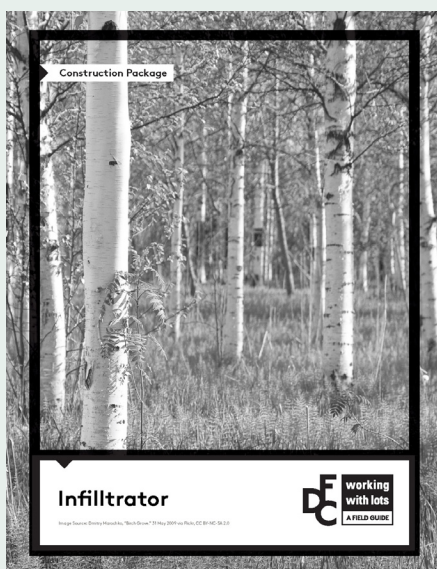
Policy Model: CITY OF DETROIT WORKING WITH LOTS FIELD GUIDE

**DETROIT
FUTURE
CITY**™

DFC **working
with lots**
A FIELD GUIDE

Working with Lots Field Guide is an online tool created by the Detroit Future City for residents to search for vacant lot re-use strategies based on criteria such as maintenance requirements, cost, experience, and stormwater treatment capability. Re-Use strategies can also be filtered by type of vacant lot and special condition, such as single, double, corner and commercial. Each strategy has a printable lot design package that outlines site preparation requirements, tool and material needs, and a step-by-step installation process. It also has a contractor package with technical site plans for construction. DFC offers mini-grant program for residents to implement the strategies in the Field Guide.

(Source: dfc-lots.com)



RECOMMENDATIONS

4.7 Public Health

The Public Health Department significantly impacts Green Business and Urban Agriculture through its regulation of animal waste, compost, and its enforcement of State and Federal regulations for food safety and point of sale. Working with urban producers to understand and comply with these and other regulations, such as FSMA, will be critical to ensure local food is produced safely.

Animal husbandry regulations most commonly affect urban agriculture and green business facilities that keep chickens and bees. The department worked with stakeholders and the GBUA team to include considerations for urban producers in the recently updated animal husbandry regulations. The City of Columbus Health Code and information regarding Animal Permitting can be found on the City's website.

The regulation and permission of composting is a key issue to both the Public Health Department and Green Business and Urban Agriculture stakeholders. Many urban producers avoid the use of synthetic chemical fertilizers, preferring to use organic materials and animal waste as an amendment to soil and compost. These recommendations seek to address the public health concerns of the department while permitting urban farms to use their preferred management techniques.

RECOMMENDATION 7A: Clarify animal husbandry regulations and allow the use of animal waste as a soil amendment

CORRESPONDING LOCAL FOOD ACTION PLAN ACTION ITEM:

- > **D-3:** Recommend changes to policies, zoning and health codes that support and encourage food waste recovery and diversion.

INTENT:

- > Reuse animal waste for urban agriculture production as permitted by FSMA.

BARRIERS ADDRESSED:

- > **Regulatory Barrier R-6:** Limitations of composting practices by regulatory codes, processes, and enforcement.
- > **Regulatory Barrier R-8:** Lack of explicitness in animal Husbandry policies and codes.

INDICATOR:

- > Reduction of solid waste pickup from urban farms.

PARTNERSHIPS:

- > Research and public education partnership with OSU Extension or other entities to better understand the potential public health benefits and impacts of animal waste as a soil amendment for urban agriculture facilities.

STRATEGIES:

- > **Strategy 7A.01:** Refine definition of animal waste to permit limited on-site use of animal waste as a soil amendment.
- > **Strategy 7A.02:** Permit limited transport of animal waste by private property owners between private properties for the purpose of amending soil.

RECOMMENDATION 7B: Define standards for on-site food waste composting for use as a soil amendment

CORRESPONDING LOCAL FOOD ACTION PLAN ACTION ITEM:

- > **D-3:** Recommend changes to policies, zoning and health codes that support and encourage food waste recovery and diversion.
- > **D-4:** Provide training, tools, and economic incentives for new and existing food businesses to develop, adopt and implement food waste prevention plans.
- > **D-5:** Build support for food waste recovery infrastructure among local leaders and large scale food waste generators.

INTENT:

- > Minimize use of chemical fertilizers.
- > Encourage spinoff green businesses.

BARRIERS ADDRESSED:

- > **Practical Barrier P-1:** Need for dialogue between public officials and elected leaders for urban agriculture and its benefits.
- > **Regulatory Barrier R-6:** Limitations of composting practices by regulatory codes, processes, and enforcement.

INDICATOR:

- > Increase of economic activity related to food composting businesses.

PARTNERSHIPS:

- > OSU Extension as research partner.
- > Ohio EPA.

STRATEGIES:

- > **Strategy 7B.01:** Define standards for safe on-site composting facilities which limit potential exposure to rodents and other nuisances.
- > **Strategy 7B.02:** Create guidelines for safe and effective residential composting practices.

RECOMMENDATIONS

4.8 Recreation and Parks

As the local food movement in Columbus grows, people will seek out ways to engage with food production. Residents in low income neighborhoods in the City do not have access to local fresh fruits and vegetables and may be left out of the growing movement. Recreation Centers and city owned parks can provide an avenue to reach these under-served residents with educational programs and spaces for food cultivation.

Many cities are making community gardening spaces accessible to residents in existing parks through annual contracts. Some are exploring new models through pilot programs for residents to reconnect with food and the environment. There is an opportunity for the department to reach under-served residents without access to fresh fruits and vegetables by expanding its food education and community gardening programs at Recreation Centers and explore emerging trends, such as Food Forests, to cultivate edible plants on under-utilized parkland. This could be achieved through cooperation with other private and non-profit organizations for management and staffing of new programs.

RECOMMENDATION 8A: Consider repurposing unprogrammed or underutilized parkland for urban agriculture

CORRESPONDING LOCAL FOOD ACTION PLAN ACTION ITEM:

- > **C-6:** Revise zoning codes, related permit requirements and land use plans to support and encourage agricultural and food system uses as a viable option for community revitalization.

INTENT:

- > Provide areas for community gardens as an amenity for residential neighborhoods.

BARRIERS ADDRESSED:

- > **Practical Barrier P-1:** Need for dialogue between public officials and elected leaders for urban agriculture and its benefits.
- > **Practical Barrier P-2:** Need for public dialogue for urban agriculture and local food systems and their potential benefits.
- > **Practical Barrier P-3:** Lack of available land and/or buildings for urban agriculture and green business activities.
- > **Practical Barrier P-4:** Lack of tools, labor, or other basic resources.

INDICATOR:

- > Growth of community gardens and urban farms.

PARTNERSHIPS:

- > Local Matters.
- > OSU Extension.
- > Greater Columbus Growers Coalition.
- > Community Groups.
- > Social Enterprises.

STRATEGIES:

- > **Strategy 8A.01:** Determine potential types of parklands which may be appropriate for use as community gardens or urban farms.
- > **Strategy 8A.02:** Create standards and procedures with an agreement drafted by the City Attorney's Office for maintenance, management, enforcement, etc. of community gardens and/or urban farms by private users to be reviewed/approved by Health Department.



Policy Model:

BALTIMORE, MARYLAND CITY FARMS PROGRAM



The Baltimore City Farms Program allows the rental of plots within existing parks for gardening, offered by the Recreation and Parks Department.

“Each gardener pays a one-time nonrefundable application fee of \$10, signs a City Farms contract, and pays a nominal rental fee, depending upon the location and size of the individual plot- standard 10’ x 15’ plot, or a smaller raised bed of 9’ x 6””

(Source: <http://bcpr.baltimorecity.gov/special-programs/farms> , <http://seedstock.com/2014/07/14/baltimores-recreation-and-parks-department-boosts-urban-farming-with-city-farms/>)



Policy Model:

OAKLAND, CALIFORNIA COMMUNITY GARDENING PROGRAM



The Oakland Community Gardening Program provides plots within City-owned parks that can be rented for an annual membership fee. Gardeners must sign a contract that includes participation requirements and prohibits the use of artificial fertilizers and insecticides. The sale of produce for personal profit is also prohibited.

(Source: <http://www.urbanaglaw.org/land-access/> , <http://www2.oaklandnet.com/government/o/opr/s/cgardening/index.htm>)



RECOMMENDATIONS

4.8 Recreation and Parks

RECOMMENDATION 8B: Integrate foraging opportunities into new and existing trails and naturalized park spaces

CORRESPONDING LOCAL FOOD ACTION PLAN ACTION ITEM:

- > **C-6:** Revise zoning codes, related permit requirements and land use plans to support and encourage agricultural and food system uses as a viable option for community revitalization.

INTENT:

- > Create a culture that embraces local food and a diverse food system.
- > Increase access to fresh food.

BARRIERS ADDRESSED:

- > **Practical Barrier P-1:** Need for dialogue between public officials and elected leaders for urban agriculture and its benefits.
- > **Practical Barrier P-2:** Need for public dialogue for urban agriculture and local food systems and their potential benefits.
- > **Practical Barrier P-3:** Lack of available land and/or buildings for urban agriculture and green business activities.
- > **Economic Barrier E-1:** Lack of public sector funding or financial support for green business and urban agriculture.
- > **Regulatory Barrier R-3:** Limitations within existing codes for urban agriculture and green business practices.

INDICATOR:

- > Quantity of edible plants incorporated into parks.

PARTNERSHIPS:

- > OSU Extension.
- > Division of Forestry.
- > Franklin Park Conservatory.
- > Wexner Center and Fallen Fruit Program.

STRATEGIES:

- > **Strategy 8B.01:** Develop policy for appropriate locations, maintenance, etc of edible plants in ongoing maintenance or construction projects.
- > **Strategy 8B.02:** Determine list of appropriate edible plant types which may be incorporated for underutilized or unprogrammed spaces.
- > **Strategy 8B.03:** Create a Food Forest pilot program.
- > **Strategy 8B.04:** Develop policy for acquisition consideration based on strictly foraging opportunities.
- > **Strategy 8B.05:** Work with OSU to develop best practices for food forests in Columbus based on the Weinland Park and Southside food forests (planned for 2017).



Policy Model:

SEATTLE, OREGON BEACON FOOD FOREST



City of Seattle

The Beacon Food Forest is a P-Patch community garden project on a 27,000 SF lot owned by Seattle Public Utilities. The garden is the first large-scale public food forest. It is designed to mimic a woodland ecosystem with edible trees, shrubs, perennials, and annuals.

The Seattle Parks and Recreation Department provides ongoing support through delivery of gardening materials.

(Source: <http://beaconfoodforest.org/>, Beacon Food Forest Facebook, <http://www.seattle.gov/neighborhoods/programs-and-services/p-patch-community-gardening/p-patch-list/beacon-food-forest>)



SECTION 5

VISION

Section 5 presents the core vision of the plan presented through five implementation themes. These themes are representative of the feedback received throughout the plan as well as the recommendations in Chapter 4.

FIVE IMPLEMENTATION THEMES

Five themes emerged through the planning process — from conversations with the working group, policy makers, community members, green business and urban agriculture practitioners and advocates. These concepts form an overarching vision for green business and urban agriculture in the City of Columbus. By following the recommendations of the Green Business & Urban Agriculture Strategic Plan, residents and policy makers will work to

- Build Networks — connecting growers, producers, distributors, sellers, and buyers; fostering relationships with policy makers and code enforcement;
- Cultivate Culture — facilitating social connection among neighbors, advocates and entrepreneurs; strengthening an image that attracts new ventures and visitors;
- Improve Health — raising awareness of healthy eating; increasing availability of fresh healthy foods to neighborhoods overall and especially in those with the most need;
- Create Opportunities — enabling and incentivizing new business who grow, process, distribute, cook, advertise, and celebrate local foods; and,
- Foster Revitalization — create lasting change in neighborhoods that are suffering from disinvestment and disconnection.

Following is an exploration of these five concepts through the eyes of the primary user groups of urban agriculture and green businesses. This high-level vision for local food systems in Columbus is then illustrated on the ground with five development concepts in identified target neighborhoods. Finally, an implementation matrix restates the plan's recommendations in table format, identifies responsible parties, and labels each in a timeframe. This tool will enable policy makers to quickly reference and track the plan's progress over the period of implementation.



BUILD NETWORKS

**CULTIVATE
CULTURE**

IMPROVE HEALTH

**CREATE
OPPORTUNITIES**

**FOSTER
REVITALIZATION**

STAKEHOLDER GROUPS

Through these five themes, four primary stakeholder groups emerge. These groups will benefit from the recommendations in the Green Business & Urban Agriculture Strategic Plan in distinct, measurable ways. On the following page, a summary chart illustrates at a high level how each user group will benefit from plan recommendations, in connection with the five themes. The vision for these user benefits are imagined through the eyes of the following people:

Growers

- Backyard Gardener
- Community Gardener
- Market Gardener
- Large Urban Grower/Processor

Green Business Owners

- Green Business Entrepreneur
- Local Chef/Restaurateur
- Cottage Baker
- Developer/Property Owner

Residents

- Community Member
- Skilled Tradesperson
- Student

Non-Residents

- Tourist
- Potential Resident



GROWERS



GREEN BUSINESS OWNERS



RESIDENTS

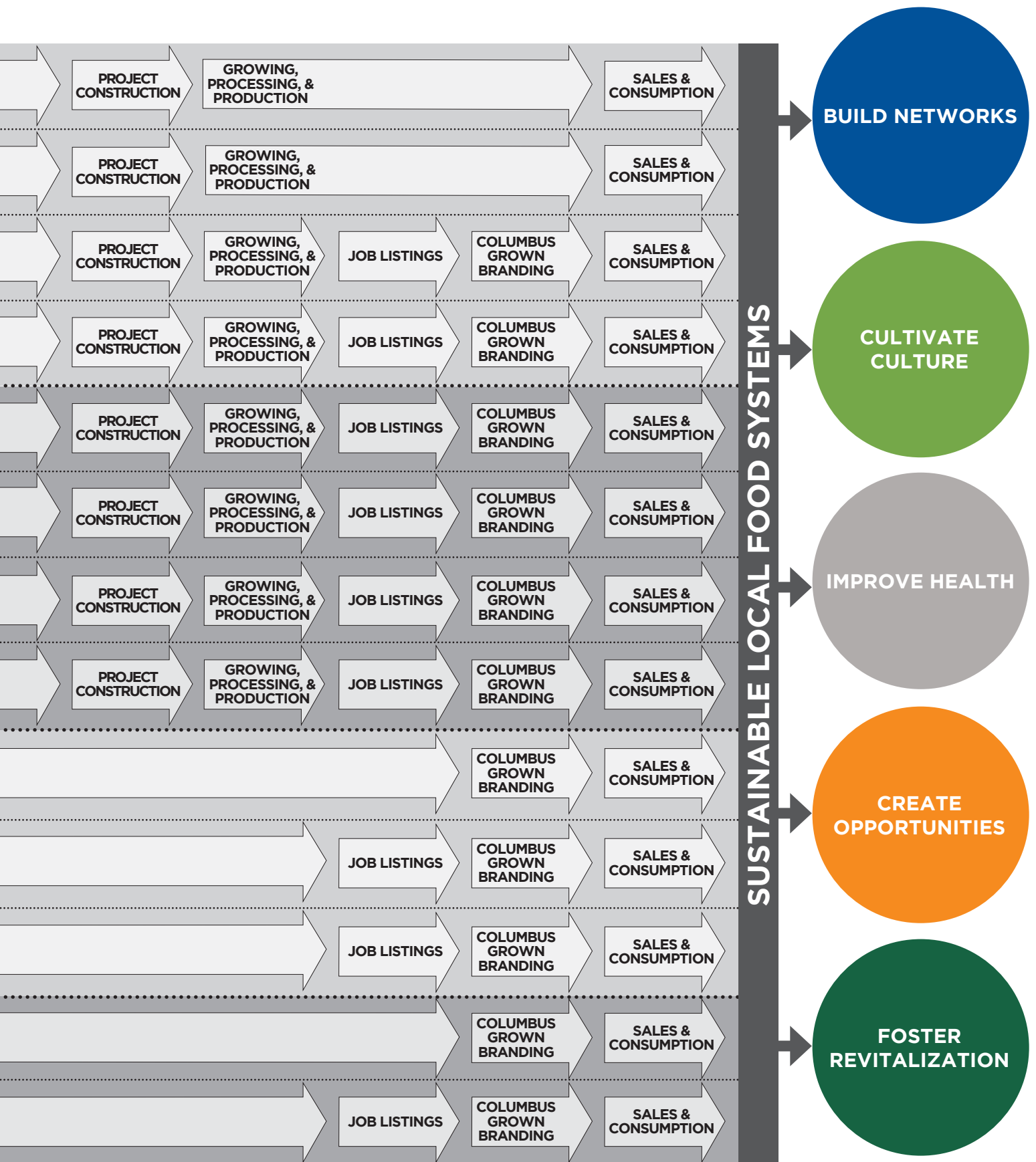


NON-RESIDENTS

VISION

5.1 Planning Recommendations User Benefits

USER GROUPS		PLANNING RECOMMENDATIONS USER BENEFITS			
GROWERS	BACKYARD GARDENER	CITY WEB PORTAL	URBAN AGRICULTURE LIAISON	PARTNERSHIPS & FUNDING	CODE REVIEW & PERMITTING
	COMMUNITY GARDENER	CITY WEB PORTAL	URBAN AGRICULTURE LIAISON	PARTNERSHIPS & FUNDING	ENGINEERING ASSISTANCE
	SMALL MARKET GROWER	CITY WEB PORTAL	URBAN AGRICULTURE LIAISON	PARTNERSHIPS & FUNDING	ENGINEERING ASSISTANCE
	LARGE URBAN GROWER/PROCESSOR	CITY WEB PORTAL	URBAN AGRICULTURE LIAISON	PARTNERSHIPS & FUNDING	CODE REVIEW & PERMITTING
GREEN BUSINESS OWNERS	GREEN BUSINESS ENTREPRENEUR	CITY WEB PORTAL	URBAN AGRICULTURE LIAISON	PARTNERSHIPS & FUNDING	ENGINEERING ASSISTANCE
	LOCAL CHEF/RESTAURATEUR	CITY WEB PORTAL	URBAN AGRICULTURE LIAISON	PARTNERSHIPS & FUNDING	CODE REVIEW & PERMITTING
	COTTAGE BAKER	CITY WEB PORTAL	URBAN AGRICULTURE LIAISON	PARTNERSHIPS & FUNDING	CODE REVIEW & PERMITTING
	DEVELOPER/PROPERTY OWNER	CITY WEB PORTAL	URBAN AGRICULTURE LIAISON	PARTNERSHIPS & FUNDING	CODE REVIEW & PERMITTING
RESIDENTS	COMMUNITY MEMBER	CITY WEB PORTAL	URBAN AGRICULTURE LIAISON	PARTNERSHIPS & FUNDING	
	SKILLED TRADESPERSON	CITY WEB PORTAL			
	STUDENT	CITY WEB PORTAL			
NON-RESIDENTS	TOURIST	CITY WEB PORTAL			
	POTENTIAL RESIDENTS	CITY WEB PORTAL			



VISION

5.2 Build Networks

BUILD NETWORKS

The commitment to green business and urban agriculture will build strong networks among growers, producers, distributors and users.

Strong networks will ensure Columbus and the larger area is able to support the growth of green business production of urban agriculture by connecting product sources to consumers.

Large-scale agriculture growers, national distributors and food processing facilities and multi-chain restaurants benefit from an economy of scale. This factor acts as a barrier to small businesses in food systems markets. Policy measures and strategies in The Green Business and Urban Agriculture Strategic Plan ensures a streamlined network for local food businesses to bring their product to market and for food sellers to have the consistent product they need to meet the demand of their customers.

Across all stages—from production to waste collection and recovery—strong connections ensure the success of local food systems.



The **market gardener** wants to distribute their produce at local farmers markets to supplement their family's income.

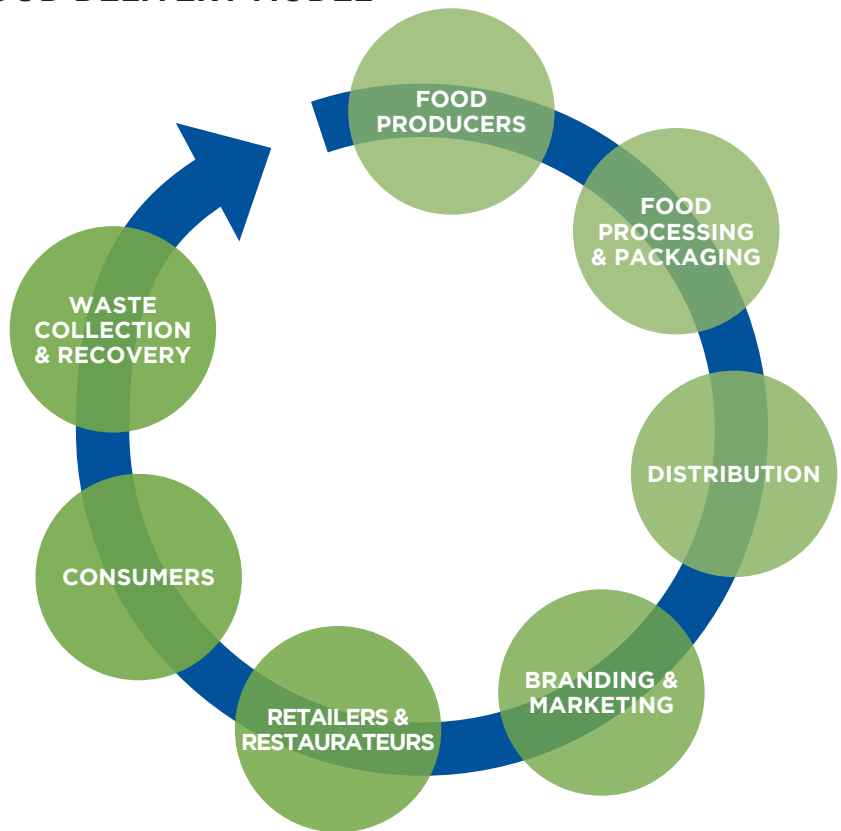


The **green business entrepreneur** would like to capitalize on local food waste by starting a citywide composting business.

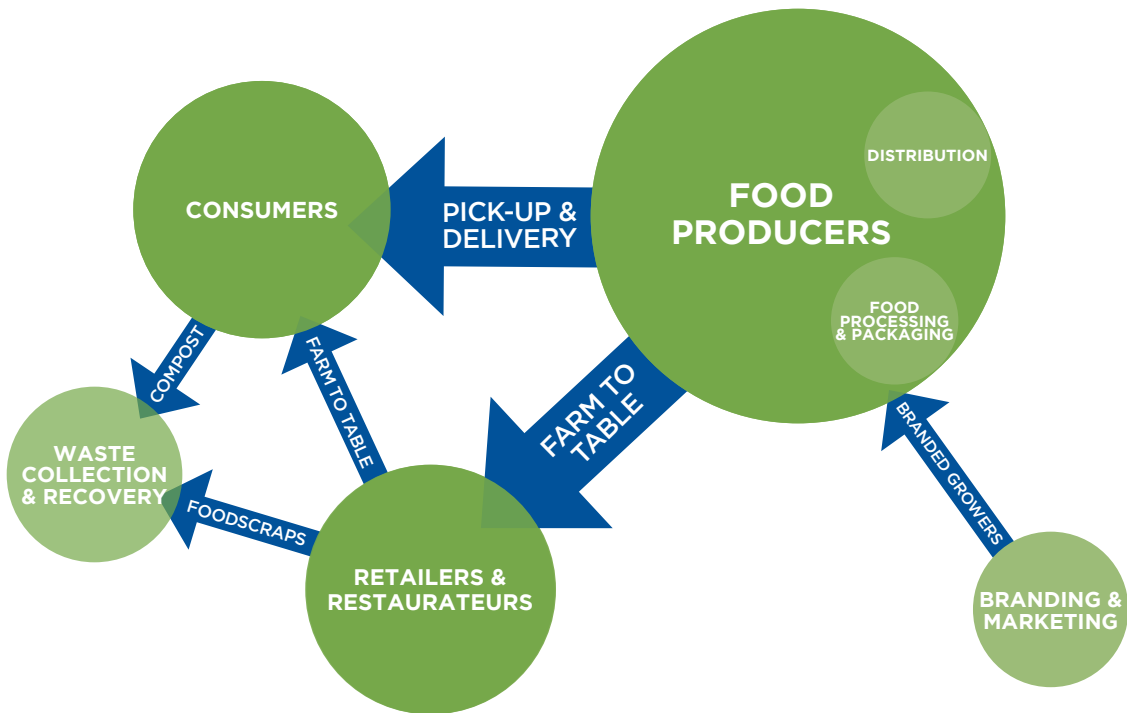


The **community member** would like to purchase a CSA share and is looking for information on local farms who offer them.

TRADITIONAL FOOD DELIVERY MODEL



CSA MODEL



VISION

5.3 Cultivate Culture

CULTIVATE CULTURE

Investing in local food systems supports a culture that brings people together.

Food plays a critical role in every tradition and celebration—across all ages and in all places—providing comfort, joy, conversation and rituals far beyond its basic need for sustaining life.

Investing in local food systems supports the food culture of a place. Columbus has a well established reputation for its delicious food that includes nationally celebrated chefs and businesses. Supporting local growers, producers and distributors will strengthen the food culture in Columbus.

These efforts will help build the brand of our city— attracting visitors, spurring entrepreneurial ventures, and produce increasingly delicious and award winning foods.

But most importantly, supporting urban agriculture and green businesses will bring us together.



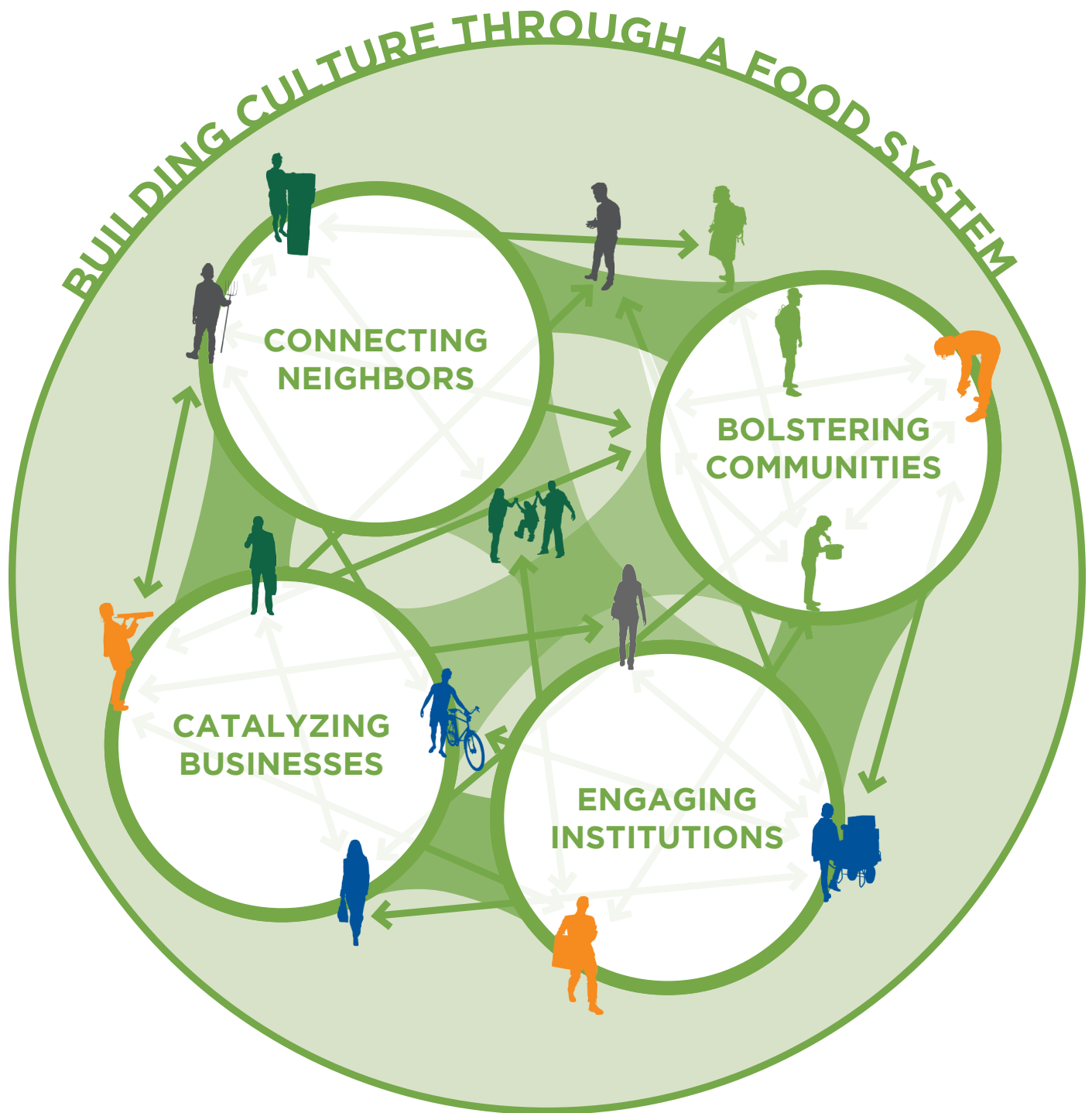
The **tourist** is attracted by a desire to explore the quality of local food and related experiences throughout the City.



The **chef** works toward opening a first restaurant concept at the local market, testing a menu and assembling regular customers.



The **community gardener** has an empty lot across the street and wants to improve neighborhood culture and health by starting a garden with their neighbors.



VISION

5.4 Improve Health

IMPROVE HEALTH

Quality food is essential to public health. Investing in local food systems will bring healthier food to more people in our city. Across our neighborhoods, many suffer from poor access to fresh produce. Local producers, community gardens, and stronger networks connecting growers to sellers will benefit members of our community who are most in need of healthy food options.

More local growers and green businesses—stronger networks and a robust food culture—will increase awareness of healthy food options and get people excited about cooking and eating healthy food.

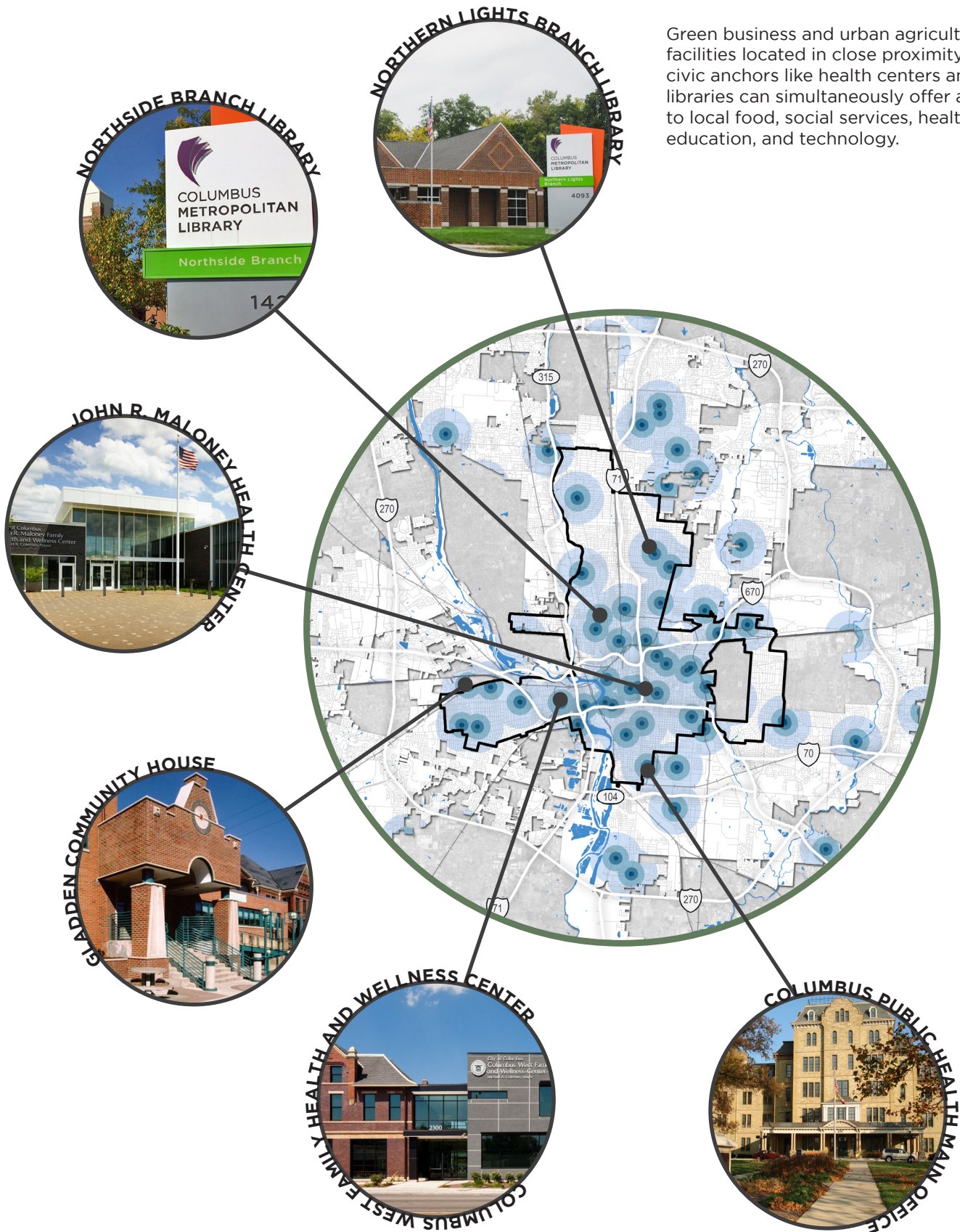
Local growers will use less chemicals. They do not need to worry about keeping produce long enough to ship hundreds of miles. Less herbicides and pesticides on our produce may not only benefit individual health, but also benefit the health of our soil and drinking water.



The **student** is looking for easier access to healthy food within walking distance or via convenient public transit.



The **backyard gardener** wants to enhance their family's health by growing organic produce and raising chickens for eggs and lean protein.



Green business and urban agriculture facilities located in close proximity to civic anchors like health centers and libraries can simultaneously offer access to local food, social services, healthcare, education, and technology.

VISION

5.5 Create Opportunities

CREATE OPPORTUNITIES

Green businesses and urban agriculture create opportunities both culturally and economically. Mission based urban farms and community gardens address social change through food production by providing fresh produce to neighborhood residents and offering education programs to develop marketable skills. Green businesses like distribution centers provide living wage jobs that can be filled by those without higher education. Food hubs provide both social and economic opportunities by providing aggregation and distribution services for small producers, employment opportunities, and community gathering spaces.



The **skilled tradesperson** looks for job listings to work a for local green businesses and growing operations.



The **urban grower** is able to grow their business because of updated regulations and confidence in the market for local foods.



The **cottage baker** is celebrating success and ready to learn how to move into a larger space and hire employees.



LOW

YIELD POTENTIAL

HIGH

CONVENTIONAL URBAN GARDENING

"2-3 Hours of work per week, no effort to grow crops with high market value"

GROWING METHOD

HYDROPONICS

"Maximizes vegetable productivity through closer spacing of plants and year round growing"

FIGURE 5.5.01: POTENTIAL GROWTH IN FOOD MANUFACTURING, WHOLESALE AND AGRICULTURE

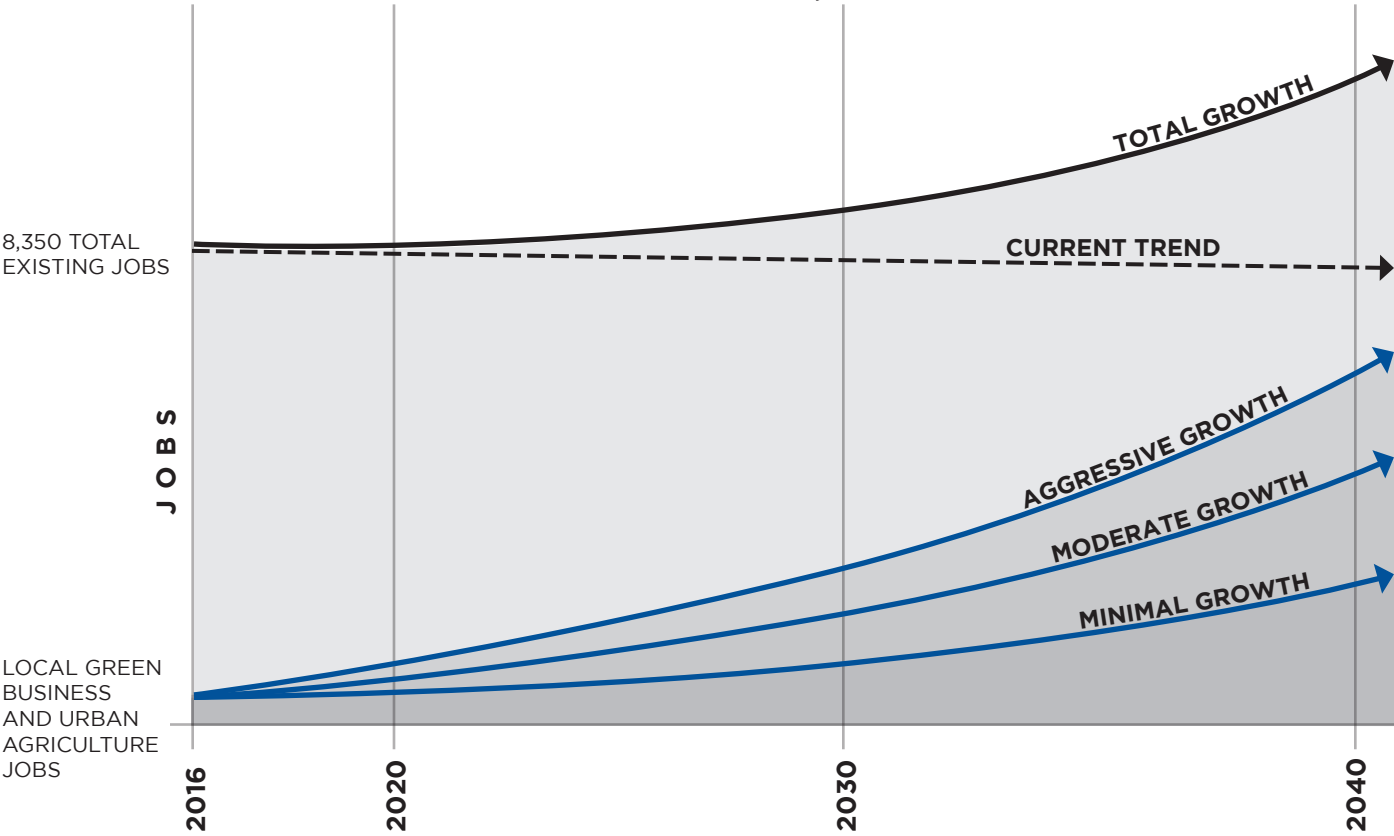
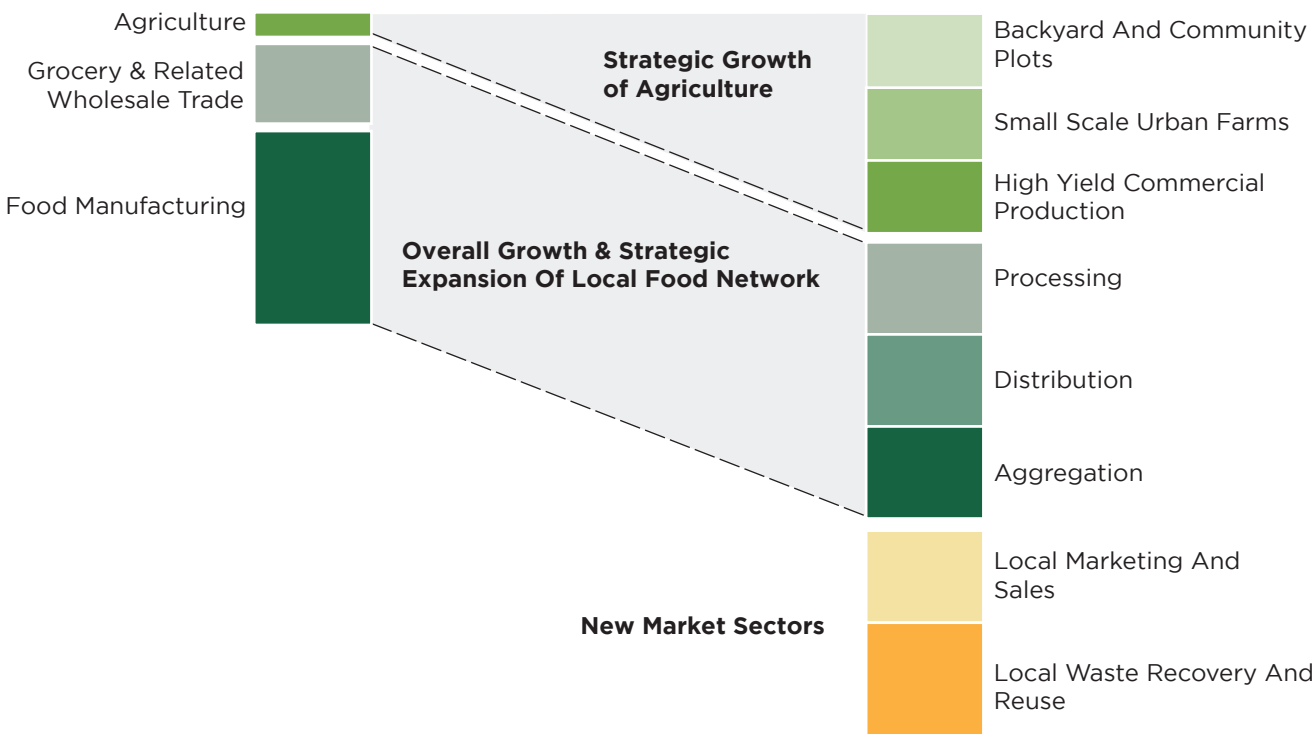


FIGURE 5.5.02: LOCAL FOOD ECONOMIC MODEL



VISION

5.6 Foster Revitalization

FOSTER REVITALIZATION

Neighborhoods in need of revitalization and increased opportunity often have poor food access and a lack of adequate transportation alternatives. These types of places are precisely where investment in local food systems has documented success.

Creating policies that support community gardens, green businesses, startup restaurants, food trucks and more can foster the revitalization of neighborhoods in Columbus that will benefit the most from them.



The **potential residents** want to move to a walkable urban neighborhood with engaged neighbors, positive momentum, and opportunities for participation.



The **developer** owns properties that are currently underutilized and is looking to fill vacant structures with new uses that are profitable and have a community benefit.

The map displays the city of Jacksonville with various neighborhoods outlined in black dashed lines. The neighborhoods are labeled as follows:

- FRANKLINTON**: Located on the western side of the city.
- NORTHEAST HILLTOP**: Located in the northwestern part of the city.
- MORSE ROAD & 161**: Located in the northern part of the city.
- LINDEN**: Located in the north-central part of the city.
- NORTH CENTRAL AND NORTHEAST**: Located in the central-northern part of the city.
- NEAR EAST**: Located in the central-eastern part of the city.
- NEAR SOUTH (LIVINGSTON AVENUE)**: Located in the central-southern part of the city.
- SOUTHEAST (HAMILTON ROAD)**: Located in the southeastern part of the city.

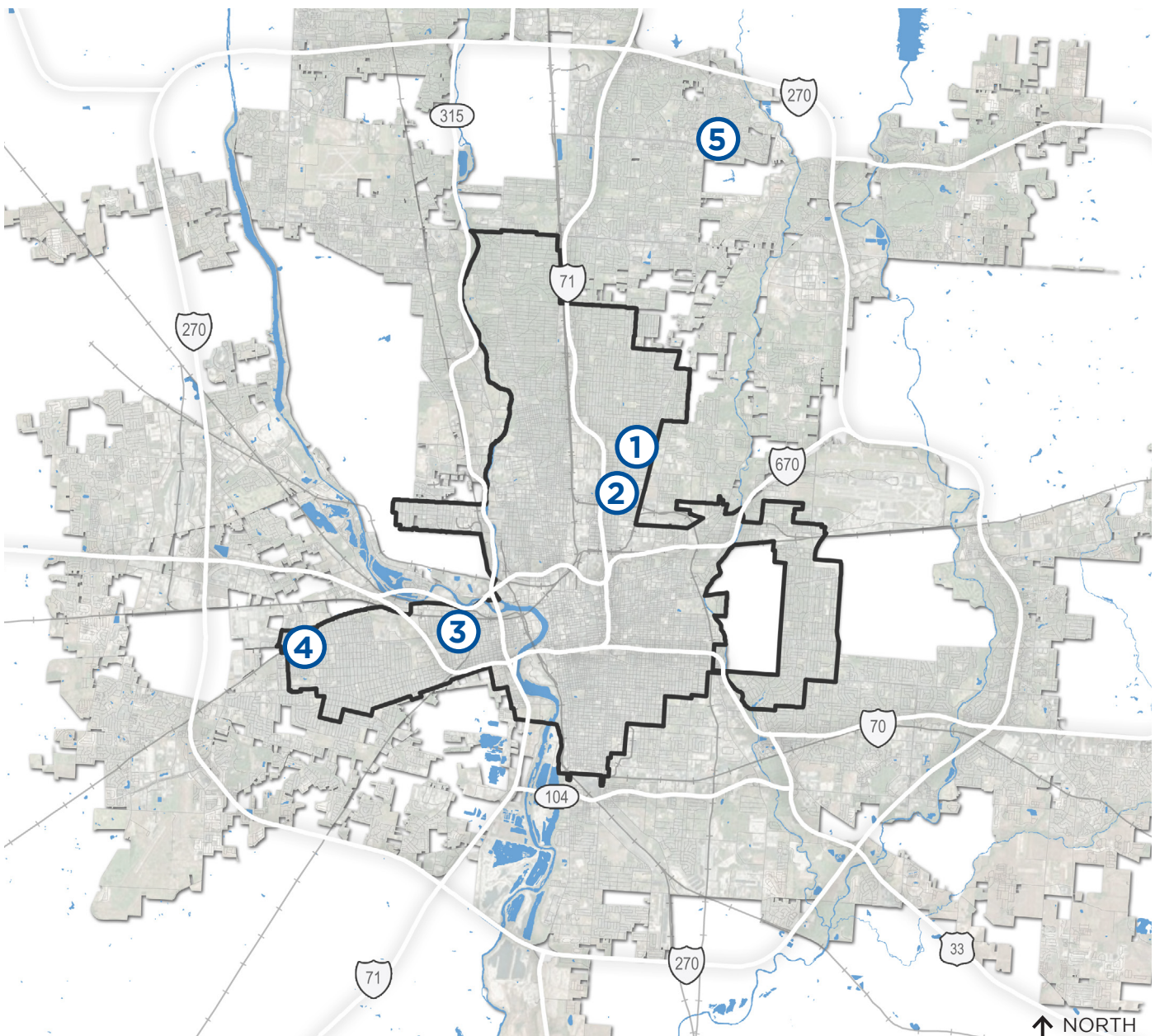
Major highways shown include I-70, I-71, I-270, and US-33. A north arrow is located in the bottom right corner.

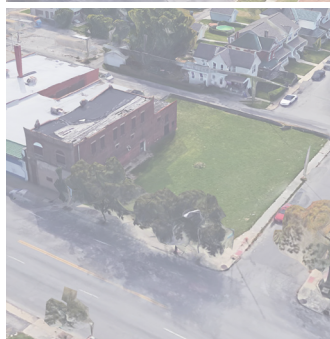
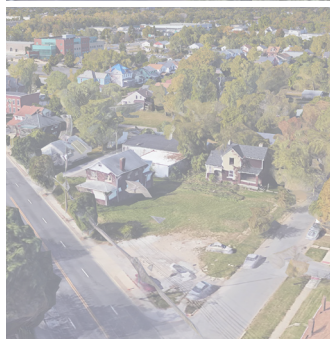
VISION

5.7 Development Concepts

DEVELOPMENT CONCEPTS

Five sites within the City of Columbus were chosen to demonstrate potential green business and urban agriculture conversions.





SITE TYPOLOGIES

1 SINGLE LOT

Single lots are located in dense urban neighborhoods. They can be found in a range of sizes, midblock or corner lots, and in various conditions depending on previous use of the property. This is the typical typology for City owned land bank properties that have been cleared.

2 MULTIPLE LOTS

Multiple lots are a combination of two or more single lots in a neighborhood context. They may be adjacent or separated by privately owned land. They may be a combination of land bank and privately owned parcels to create a larger development site.

3 SMALL COMMERCIAL SITE

Small commercial sites can be found along urban corridors like Cleveland or Sullivant Avenue. They are vacant structures that can be adapted to indoor green business or urban agriculture businesses.

4 INDUSTRIAL SITE

Industrial sites are former warehouse or manufacturing facilities.

5 LARGE COMMERCIAL SITE

Large commercial sites are strip mall or big box structures that have been vacated.

VISION

5.7 Development Concepts

SINGLE LOT

- > Neighborhood stabilization and food access potential
- > Community focus through public art integration with site components
- > Reuse of existing vacant lots
- > Easily accessible with public / multi-modal transit
- > Community gardens using in-ground, raised beds
- > Green space for informal community gathering areas

SAMPLE PROGRAM ELEMENTS:

SITE COMPONENT	AREA
Community Gardens	4,000 SF
Compost	100 SF
Storage Shed	200 SF
Green Space / Gathering Space	1,000 SF

EXISTING CONDITIONS	AREA
SITE: Located in South Linden neighborhood near Cleveland Ave. Owned by Columbus Land Bank.	10,000 SF
BUILDING: Vacant lot	N/A

FIGURE 5.7.01: SINGLE LOT SCENARIO EXISTING SITE



FIGURE 5.7.02: SINGLE LOT SCENARIO PROPOSED DESIGN



VISION

5.7 Development Concepts

MULTIPLE LOTS

- > Neighborhood stabilization and food access potential
- > Reuse and combination of existing vacant lots
- > Easily accessible with public / multi-modal transit
- > Exterior production using hoop houses, in-ground, raised beds
- > Public sales through market
- > CSA pickup through market
- > Commercial corridor revitalization

SAMPLE PROGRAM ELEMENTS:

SITE COMPONENT	AREA
Hoop house Production	6,000 SF
In-Ground Production	8,000 SF
Community Gardens	2,000 SF
Compost	300 SF
Chicken Coop + Run	1,500 SF
Cold Storage	200 SF
Storage Shed	200 SF
Employee / Customer Parking	4,000 SF
Covered Market Space	1,000 SF
Stormwater Detention / Green Space	5,000 SF

EXISTING CONDITIONS	AREA
SITE: Located in South Linden neighborhood on Cleveland Ave. 7 total vacant lots, 5 owned by Columbus Land Bank.	45,000 SF
BUILDING: All vacant lots	N/A

FIGURE 5.7.03: MULTIPLE LOTS SCENARIO EXISTING SITE



FIGURE 5.7.04: MULTIPLE LOTS SCENARIO PROPOSED DESIGN



VISION

5.7 Development Concepts

SMALL COMMERCIAL SITE REUSE

- > Business incubation / shared use facility
- > Reuse of existing commercial building / site
- > Easily accessible with public / multi-modal transit
- > Indoor production using hydroponic growing techniques
- > Local product aggregation / distribution capability
- > Public sales of products through market / retail
- > CSA pickup through market
- > Commercial corridor revitalization

SAMPLE PROGRAM ELEMENTS:

SITE COMPONENT	AREA
Outdoor Growing	3,000 SF
Customer / Employee Parking	3,000 SF
Covered Market	700 SF
Green Space	3,000 SF
Indoor Production	2,500 SF
Office	500 SF
Retail	500 SF
Loading / Unloading	2,000 SF

EXISTING CONDITIONS	AREA
---------------------	------

SITE:

Located in West Franklinton neighborhood on Broad St.

10,000 SF

BUILDING:

Currently vacant commercial building, privately owned.

3,500 SF

FIGURE 5.7.05: SMALL COMMERCIAL REUSE SCENARIO EXISTING SITE



FIGURE 5.7.06: SMALL COMMERCIAL REUSE SCENARIO PROPOSED DESIGN



VISION

5.7 Development Concepts

INDUSTRIAL BUILDING REUSE

- > Strong job creation and economic development potential
- > Commercial corridor revitalization
- > Reuse of existing industrial building
- > Easily accessible with public / multi-modal transit
- > Close proximity to freeway
- > Indoor production using vertical / hydroponic growing techniques
- > Indoor processing/distribution
- > Products distributed locally to institutional buyers
- > Public sales through market
- > Business incubation

SAMPLE PROGRAM ELEMENTS:

SITE COMPONENT	AREA
Customer / Employee Parking	20,000 SF
Covered Market	2,000 SF
Indoor Production / Storage	90,000 SF
Office	30,000 SF
Loading / Unloading	70,000 SF

EXISTING CONDITIONS	AREA
SITE: Located in Hilltop neighborhood. Extensive loading area, trailer parking. Easy access from Broad St. Directly adjacent to Camp Chase Trail.	100,000 SF
BUILDING: Manufacturing / storage capabilities, office space, 6 loading docks, divided into 5 areas. Owned by State of Ohio.	120,000 SF

FIGURE 5.7.07: INDUSTRIAL BUILDING REUSE SCENARIO EXISTING SITE



FIGURE 5.7.08: INDUSTRIAL BUILDING REUSE SCENARIO PROPOSED DESIGN



VISION

5.7 Development Concepts

LARGE-SCALE COMMERCIAL REUSE

- > Strong job creation and economic development potential
- > Commercial corridor revitalization
- > Reuse of existing commercial building
- > Easily accessible with public transit
- > Close proximity to freeway
- > Indoor production using vertical growing techniques
- > Outdoor production using greenhouses / hoop houses
- > Products distributed locally to institutional buyers
- > Public sales through storefront and market

SAMPLE PROGRAM ELEMENTS:

SITE COMPONENT	AREA
Outdoor Growing	100,000 SF
Customer / Employee Parking	60,000 SF
Covered Market	6,000 SF
Stormwater Detention / Green Space	80,000 SF
Indoor Production	50,000 SF
Office	20,000 SF
Retail	10,000 SF
Loading / Unloading	35,000 SF

EXISTING CONDITIONS	AREA
---------------------	------

SITE:

Located in North Linden neighborhood.
Current asphalt parking lot. Easily access
to Dublin-Granville Rd

360,000 SF

BUILDING:

Previously occupied by Kroger. Currently
Vacant, privately owned.

87,000 SF

FIGURE 5.7.09: LARGE-SCALE COMMERCIAL REUSE SCENARIO EXISTING SITE



FIGURE 5.7.10: LARGE-SCALE COMMERCIAL REUSE SCENARIO PROPOSED DESIGN

SECTION 6

BUDGET & TIMEFRAME

Section 6 presents a pathway to implementation of the plan recommendations and includes timeframes and budgets for various plan elements.

BUDGET AND TIMEFRAME

6.0 Proposed Timeframes and Budget Estimates

INTRODUCTION

The following charts are representative of an approach to implementing the themes and recommendations of the plan. This is intended to guide future policy and budget decisions for both elected officials and for City administrators.

PROPOSED TIMEFRAMES

Timeframes have been established to provide a general intent for when plan recommendations should be addressed.

1. Near Term

Near term recommendations should be addressed in the immediate future. Generally this will include the next 1-5 years.

2. Mid Term

Mid term recommendations are those which cannot or need not be accomplished in the immediate future, but should be addressed 5-15 years into the future.

3. Long Term

Long term recommendations are those which are general in nature and should be accomplished over 15-25 years. While these require great timeframes to achieve, they should be addressed through the implementation of other near term or mid term recommendations.

PROPOSED BUDGETS

The budget figures presented in the following chart are representative of a preliminary estimate of outside costs for various recommended programs and personnel required to achieve the plan recommendations. These figures will be refined as budget proposals for specific items are developed and refined. The figures are in 2017 Dollars and should be adjusted to reflect inflation and other economic considerations in the future. Shifting existing staff priorities to budget items costing \$0 would indirectly increase costs but for the purposes of the plan only new expenditures are shown. The opportunity costs of shifting staff resources are not estimated.

FIGURE 6.0.01: PROPOSED TIMEFRAME AND BUDGET CHART

CITY DEPARTMENT	RECOMMENDATION	LEAD	TIMEFRAME	BUDGET**
CITY-WIDE	1A: Create a City of Columbus green business and urban agriculture brand identity, web portal, and dedicated annual funding program	Public; City of Columbus.	Near Term	\$250,000 (Initial) \$100,000 (recurring annually)
	1B: Create, identify or contract for services with a green business and urban agriculture concierge/coordinator	Public; City of Columbus & Ad Hoc Local Food Team	Near Term, Mid Term, Long Term	\$50,000 (recurring annually)
	1C: Create a funding pool for grants to support small agricultural businesses and social enterprises	Public; City of Columbus	Near Term	\$50,000 (recurring annually)
	1D: Provide engineering assistance for urban farms and green businesses	Public; City of Columbus/ Professional Societies/ NDC	Near Term	\$0.00 (Pro bono partnerships with other entities)

**Costs shown are subject to funding availability and staffing, and do not represent a commitment by the City for the amount shown or for the required staff necessary to pursue a recommendation

CITY DEPARTMENT	RECOMMENDATION		LEAD	TIMEFRAME	BUDGET**
	1E:	Create new or modify existing program to provide, services, support and education to community gardeners citywide	Public; City of Columbus	Near Term	\$100,000 (recurring annually)
	1F:	Increase availability and reduce cost of safe water for agricultural and green business use	Public/ Private; City of Columbus	Near Term, Mid Term, Long term	\$50,000 (mini grants recurring annually)
	1G:	Identify potential sites for the creation of farmer's market/ central food marketplaces in underserved neighborhoods	Public; City of Columbus, Economic Development Entities	Near Term	\$0.00 (Partnerships with other entities and/ or adjustments of existing programs)
	1H:	Create urban farm 'edge' improvement program	Public/ Private; City of Columbus/ Non-Profit Entities	Near Term	\$50,000 (mini grants recurring annually)
	1I:	Utilize land use policies to support and incentivize local food network growth	Public; City of Columbus	Mid Term	\$0.00 (Adjust existing programs & policies)
BUILDING AND ZONING SERVICES	2A:	Explicitly define and permit urban agriculture and related activities in zoning regulations	Public; City of Columbus	Near Term	\$0.00 (Adjustments of existing code and policies)
	2B:	Modify selected code requirements to enable expanded urban agricultural activities in residential districts	Public; City of Columbus	Mid Term	\$0.00 (Adjustments of existing code and policies)
	2C:	Explore the creation of an overlay zoning district which permits expanded urban agricultural activities	Public; City of Columbus	Mid Term	\$0.00 (Adjustments of existing code and policies)
ECONOMIC DEVELOPMENT	3A:	Leverage existing regional and state resources dedicated to promoting food manufacturing and production industry clusters, including workforce development, business assistance and strategic partnerships	Public/ Private; City of Columbus/ Econ. Dev. Entities	Near Term, Mid Term, Long Term	\$0.00 (Partnerships with other entities)
	3B:	Investigate the creation of a local-food finance district to serve clusters of local-food-oriented businesses, to generate revenue that benefits businesses within the district	Public/ Private; City of Columbus/ Econ. Dev. Entities	Mid Term, Long Term	\$0.00 (Adjustments of existing code and policies)

****Costs shown are subject to funding availability and staffing, and do not represent a commitment by the City for the amount shown or for the required staff necessary to pursue a recommendation**

BUDGET AND TIMEFRAME

6.0 Proposed Timeframes and Budget Estimates

CITY DEPARTMENT	RECOMMENDATION		LEAD	TIMEFRAME	BUDGET**
	3C	Attract new or increase capacity of existing large scale growers and food producers through economic development mechanisms and partnerships	Public/Private; City of Columbus/Econ. Dev. Entities	Near Term	\$0.00 (Partnerships with other entities, adjust existing programs & policies)
	3D	Support and assist regional efforts to increase the amount of local food purchased by school districts, higher education, hospitals, and other anchor institutions	Public/Private; City of Columbus/Econ. Dev. Entities	Near Term	\$0.00 (Partnerships with other entities, adjust existing programs & policies)
	3E	Support the expansion and creation of local-food processing and distribution businesses and food hubs that provide markets for Central Ohio farmers and simplify purchases by institutions and grocers	Public/Private; City of Columbus/Econ. Dev. Entities	Near Term	\$0.00 (Partnerships with other entities, adjust existing programs & policies)
	3F	Encourage the development and use of technology for processing, distributing, and urban agriculture practices	Public/Private; City of Columbus/Econ. Dev. Entities	Near Term	\$0.00 (Partnerships with other entities, adjust existing programs & policies)
	3G	Encourage local businesses to commit to Columbus grown and sourced products	Public/Private; City of Columbus/Econ. Dev. Entities	Near Term	\$0.00 (Partnerships with other entities, adjust existing programs & policies)
	3H	Recapture food waste as economic opportunity	Public/Private; City of Columbus/Econ. Dev. Entities	Mid Term	\$0.00 (Partnerships with other entities, adjust existing programs & policies)
LAND REDEVELOPMENT	4A	Provide fertility and contaminant testing for soils of land bank properties in gardens and farms on city land and bank property	Public; City of Columbus	Near Term	\$10,000 (mini grants recurring annually)
	4B	Extend land tenure for city land bank properties appropriate for long-term urban agricultural production	Public; City of Columbus	Near Term	\$0.00 (Adjust existing programs & policies)

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CITY DEPARTMENT	RECOMMENDATION		LEAD	TIMEFRAME	BUDGET**
	4C	Support or enable private land trusts to hold land for urban agriculture activities	Public; City of Columbus/ Non-profit groups	Mid Term, Long Term	\$0.00 (Adjust existing programs & policies)
	4D	Create vacant land/building re-use pattern book for target neighborhoods	Public; City of Columbus/ Local Food Council/NDC	Mid Term	\$20,000 (Consultant fee or partnership)
NEIGHBORHOODS	5A	Work with Civic Associations and Area Commissions to foster dialogue regarding urban agriculture considerations	Public; City of Columbus	Near Term	\$0.00 (Partnerships with other entities)
	5B	Establish expectations for neighborhood aesthetic and urban design compatibility	Public/ Private; City of Columbus/ NDC/Non-profit entities	Near Term, Mid Term	\$10,000 (Consultant fee or grant)
	5C	Create partnership opportunities for returning citizens and immigrant populations to engage in urban agriculture	Public; City of Columbus/ Non-profit groups	Near Term	\$0.00 (Adjust existing programs & policies)
PUBLIC UTILITIES	6A	Adapt or create stormwater Best Management Practices (BMP's) specific to urban agriculture & green business facilities	Public/ Private; City of Columbus/ Non-profit groups	Near Term	\$20,000 (Consultant fee or grant)
PUBLIC HEALTH	7A	Clarify animal husbandry regulations and allow the use of animal waste as a soil amendment	Public; City of Columbus	Near Term	\$0.00 (Adjust existing programs & policies)
	7B	Define standards for on-site food waste composting for use as a soil amendment	Public; City of Columbus	Near Term	\$0.00 (Adjust existing programs & policies)
RECREATION & PARKS	8A	Consider repurposing unprogrammed or underutilized parkland for urban agriculture	Public; City of Columbus	Near Term	\$0.00 (Adjust existing programs & policies)
	8B	Integrate foraging opportunities into new and existing trails and naturalized park spaces	Public/ Private; City of Columbus/ Non-profit groups	Near Term, Mid Term	\$0.00 (Adjust existing programs & policies)

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